



# Appendix A: 20dB Emission Bandwidth (EBW)



## 1 Result Table

EUT Conf.	EBW [MHz]	Verdict
TM1_DH5_Ch0	0.950	Pass
TM1_DH5_Ch39	0.949	Pass
TM1_DH5_Ch78	0.950	Pass
TM2_2DH5_Ch0	1.278	Pass
TM2_2DH5_Ch39	1.279	Pass
TM2_2DH5_Ch78	1.278	Pass
TM3_3DH5_Ch0	1.267	Pass
TM3_3DH5_Ch39	1.269	Pass
TM3_3DH5_Ch78	1.269	Pass



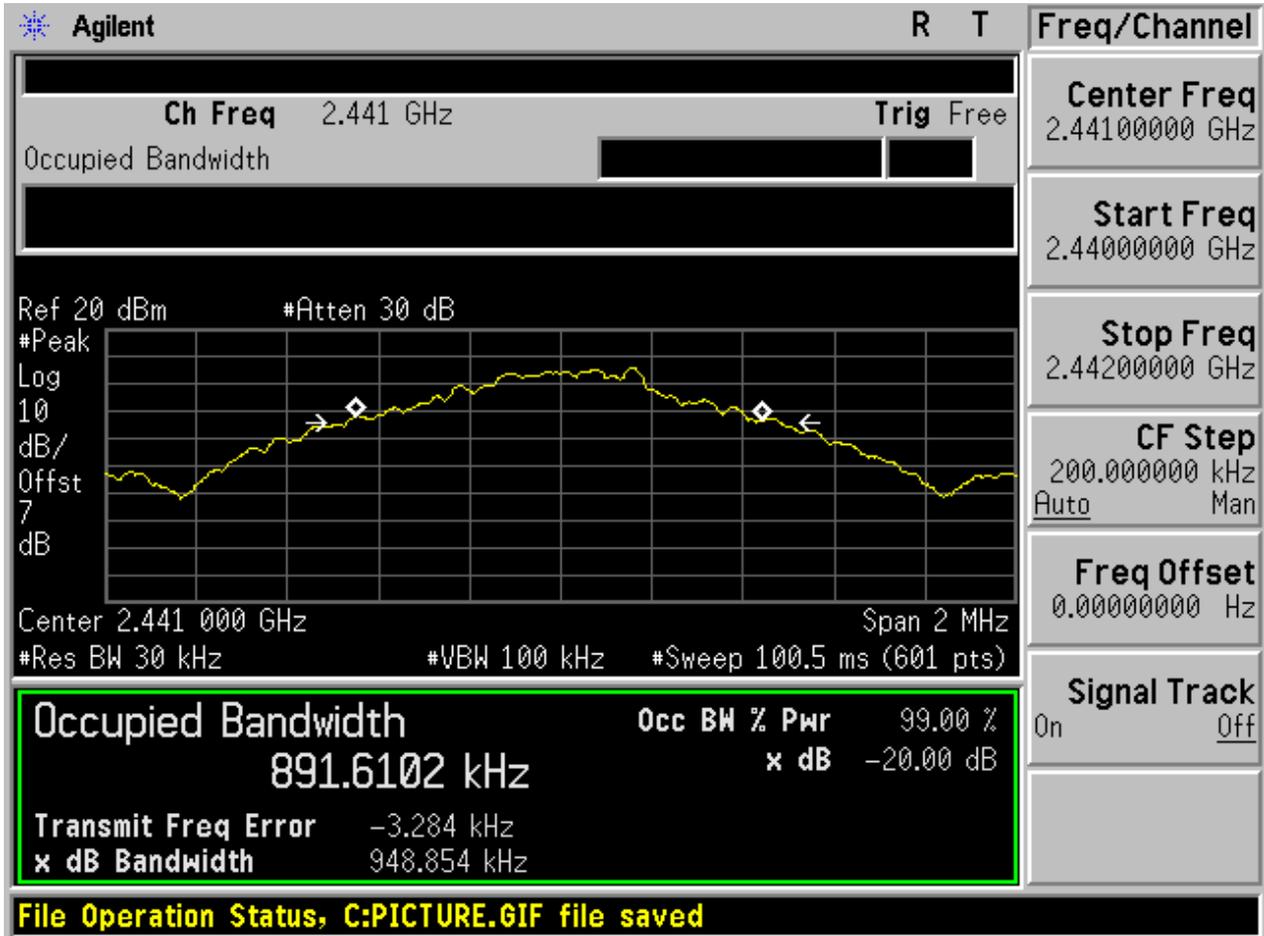
## 2 Test Plot

### 2.1 TM1\_DH5\_Ch0

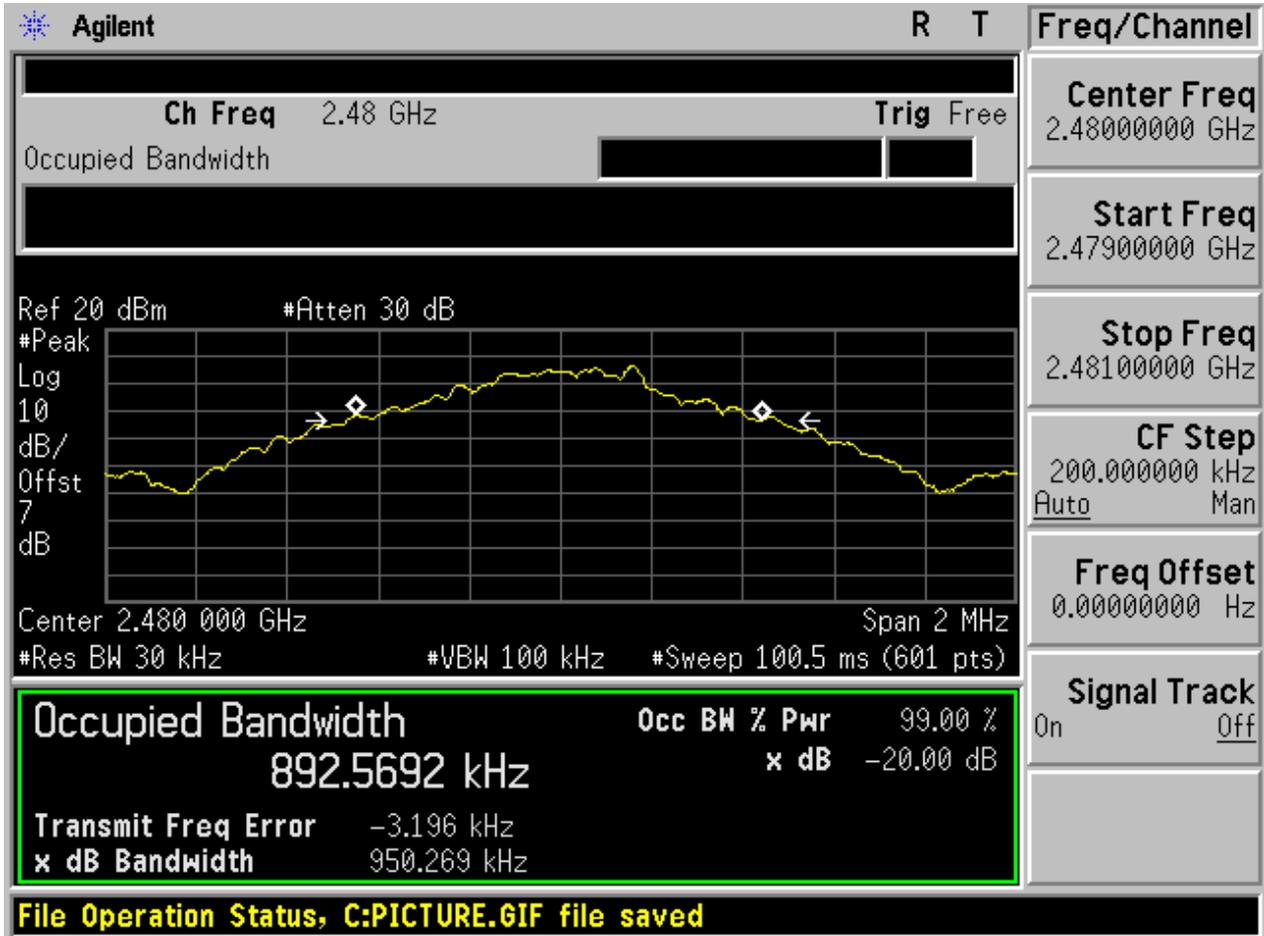




2.2 TM1\_DH5\_Ch39



2.3 TM1\_DH5\_Ch78



2.4 TM2\_2DH5\_Ch0



2.5 TM2\_2DH5\_Ch39



2.6 TM2\_2DH5\_Ch78



2.7 TM3\_3DH5\_Ch0

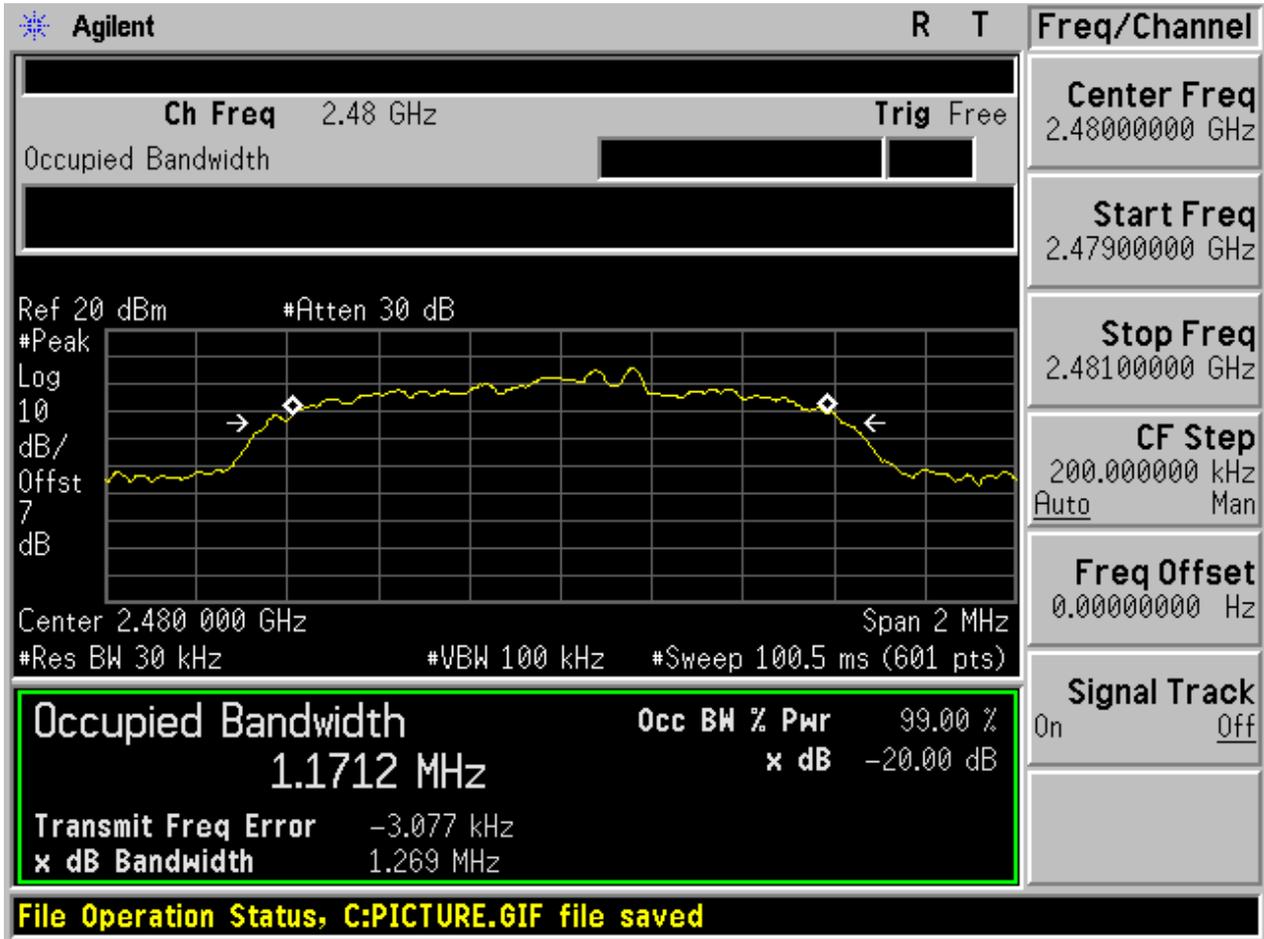




2.8 TM3\_3DH5\_Ch39



2.9 TM3\_3DH5\_Ch78





# Appendix B: Carrier Frequency Separation

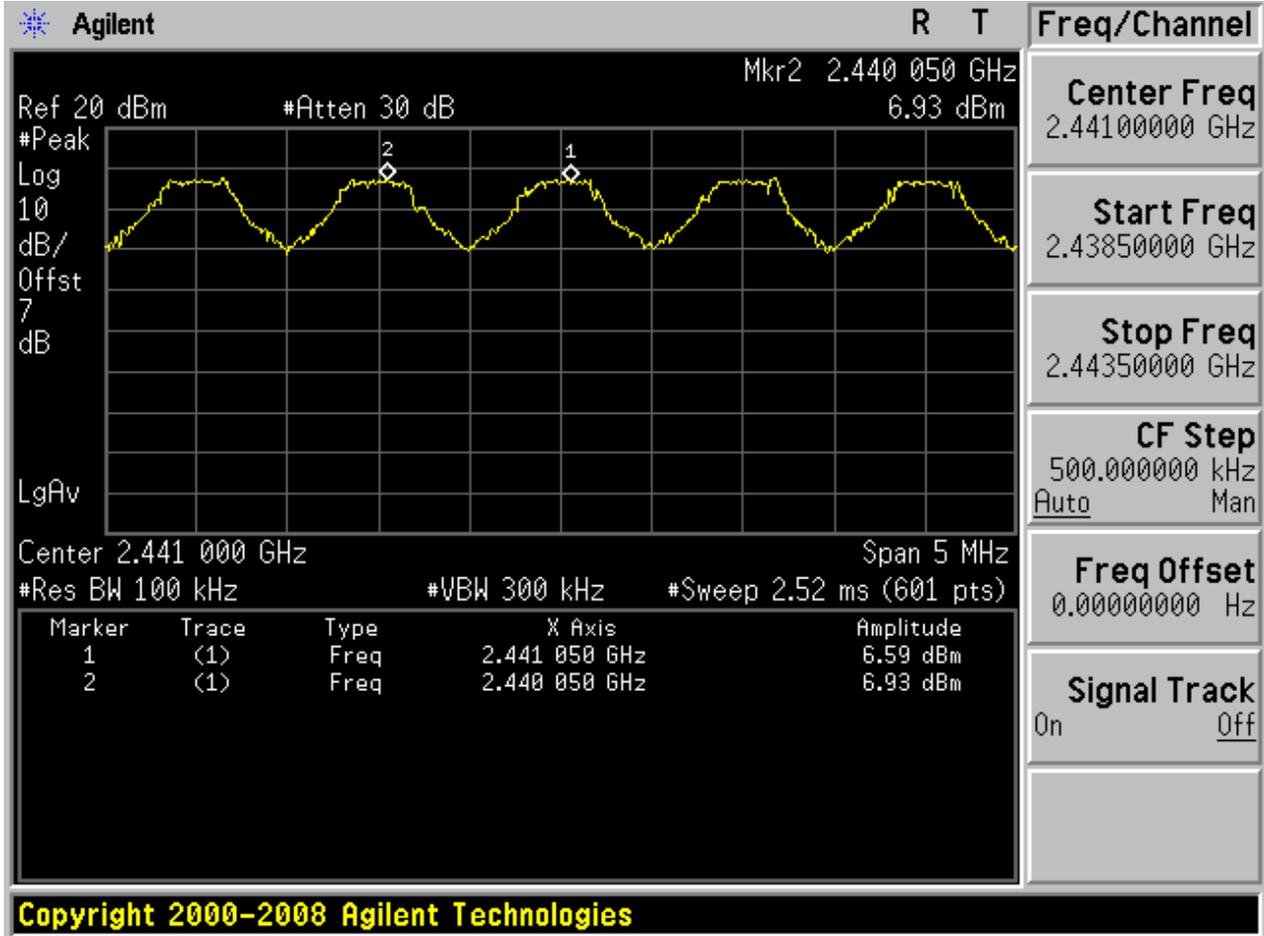


## 1 Result Table

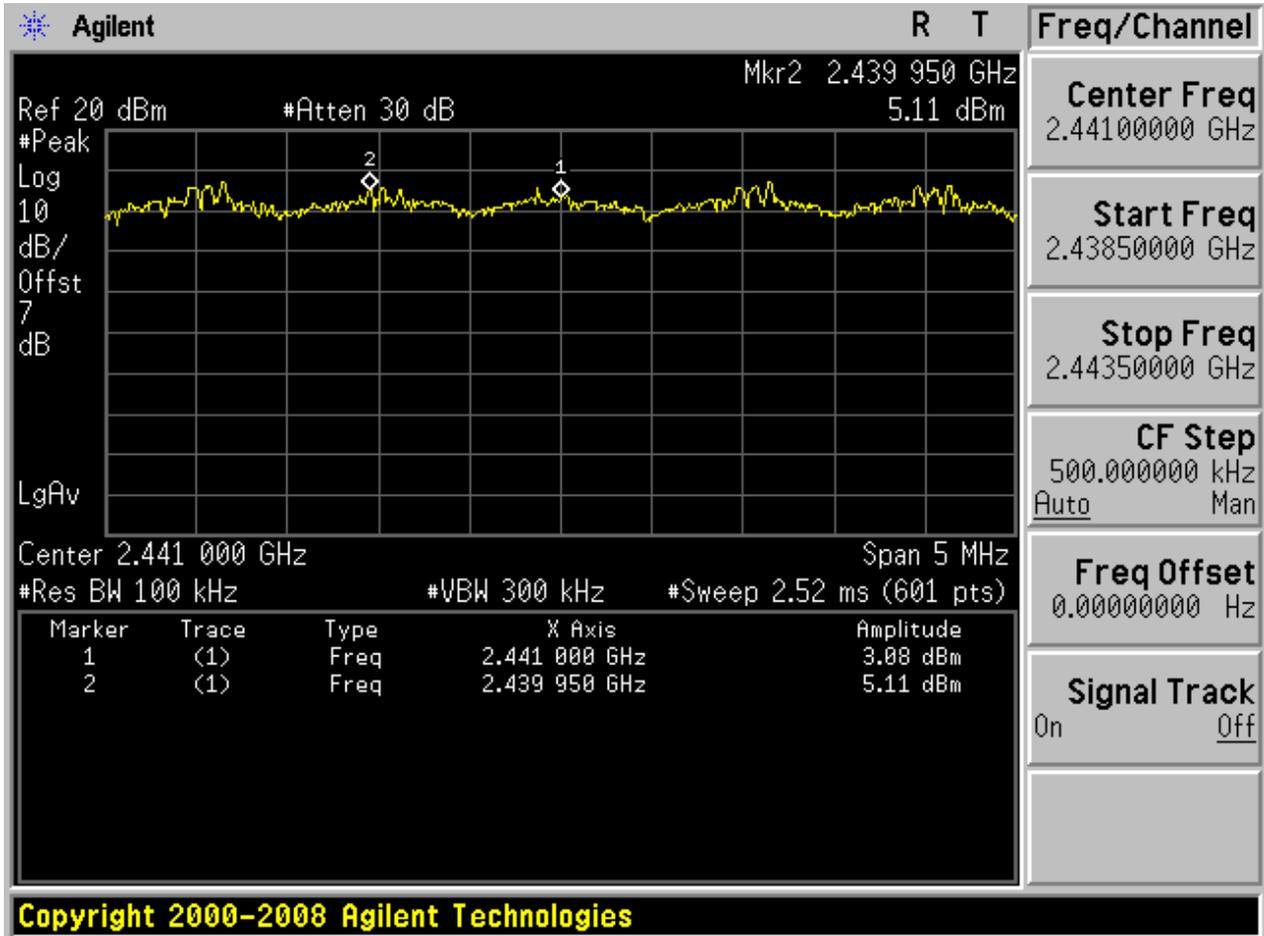
EUT Conf.	Carrier Frequency Separation [MHz]	Verdict
TM1_DH5_Hop	1.000	Pass
TM2_2DH5_Hop	1.050	Pass
TM3_3DH5_Hop	1.050	Pass

## 2 Test Plot

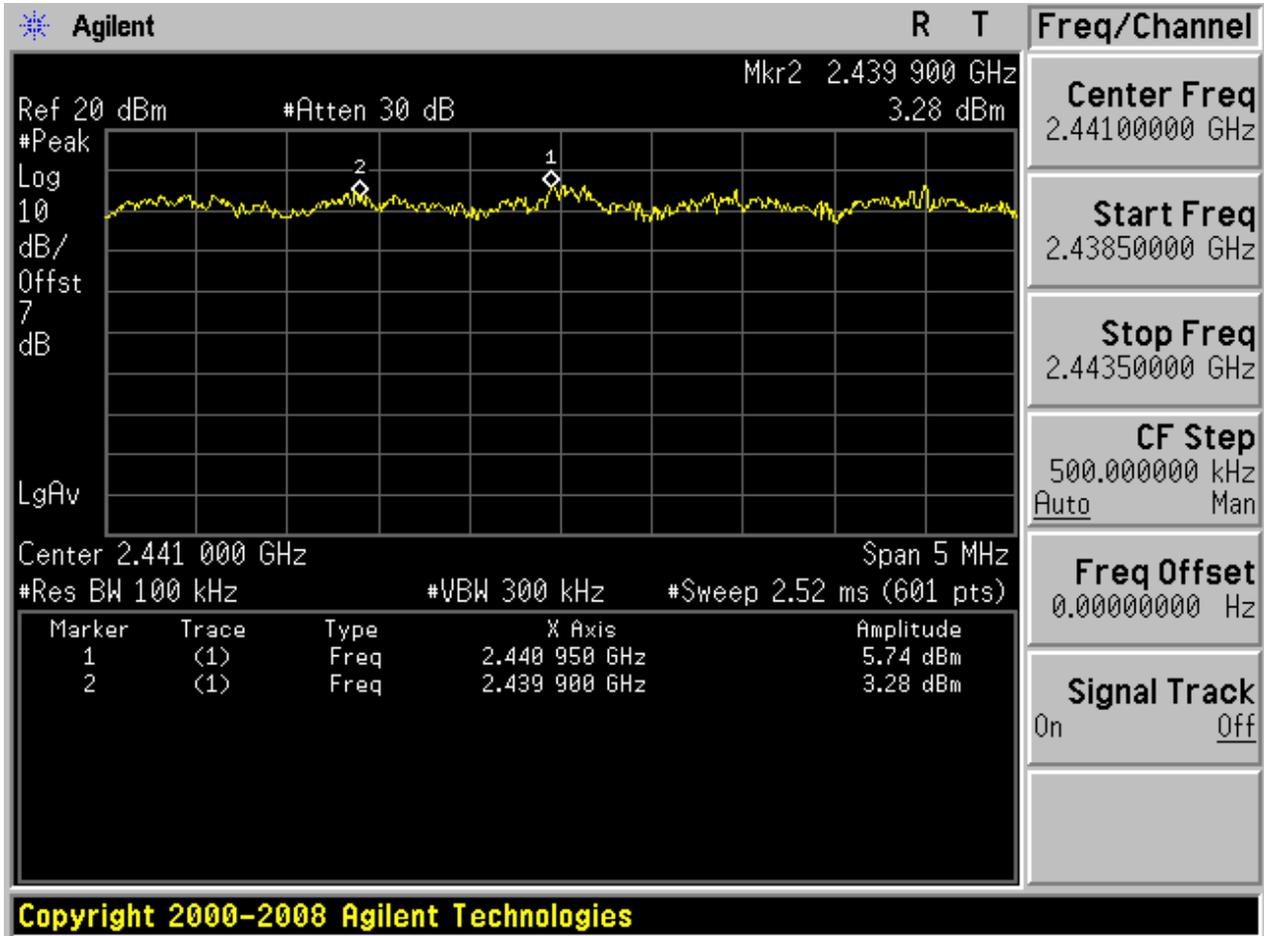
### 2.1 TM1\_DH5\_Hop



2.2 TM2\_2DH5\_Hop



### 2.3 TM3\_3DH5\_Hop





# Appendix C: Number of Hopping Channel

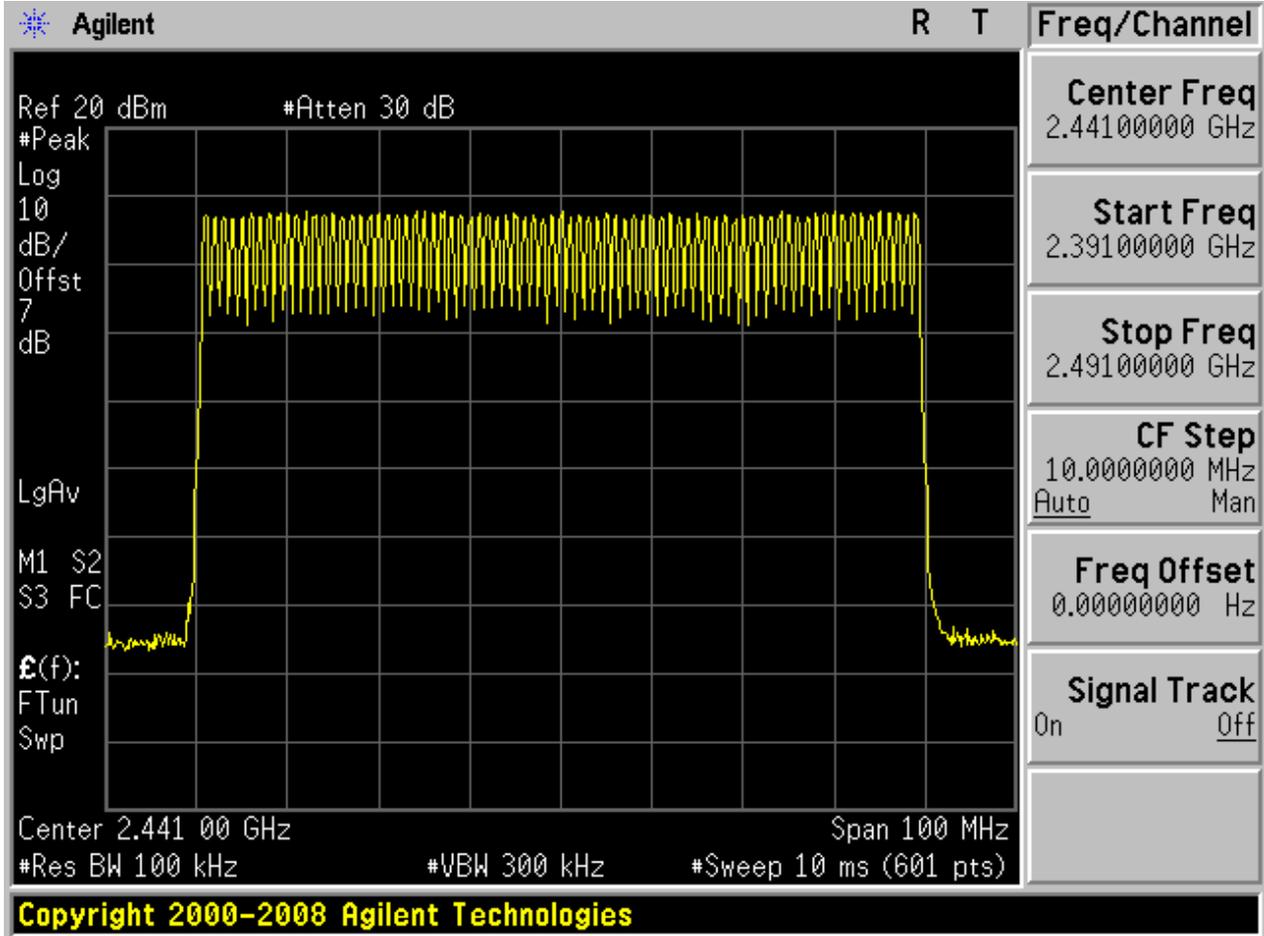


## 1 Result Table

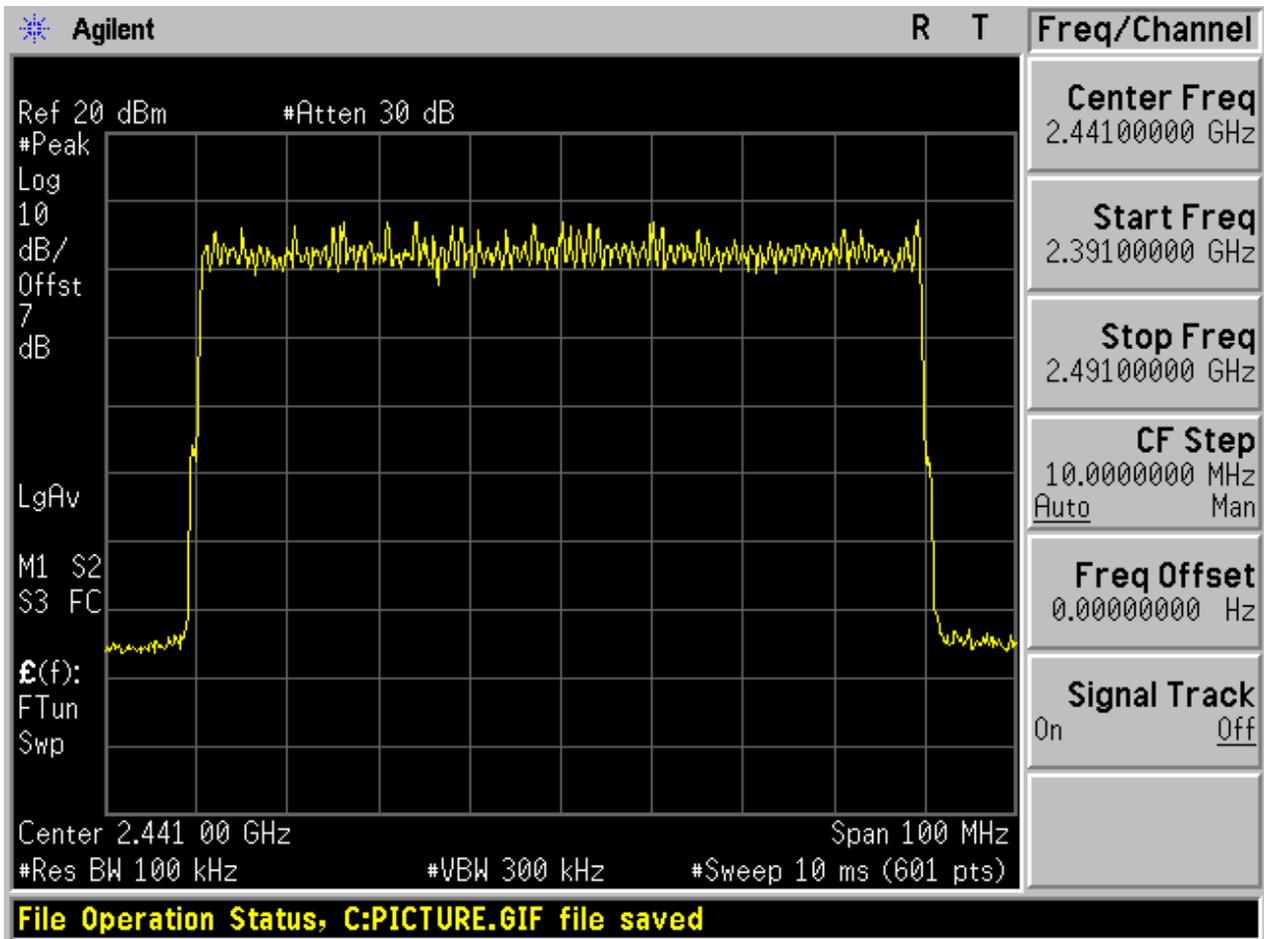
EUT Conf.	Number of Hopping Channel	Verdict
TM1_DH5_Hop	79	Pass
TM2_2DH5_Hop	79	Pass
TM3_3DH5_Hop	79	Pass

## 2 Test Plot

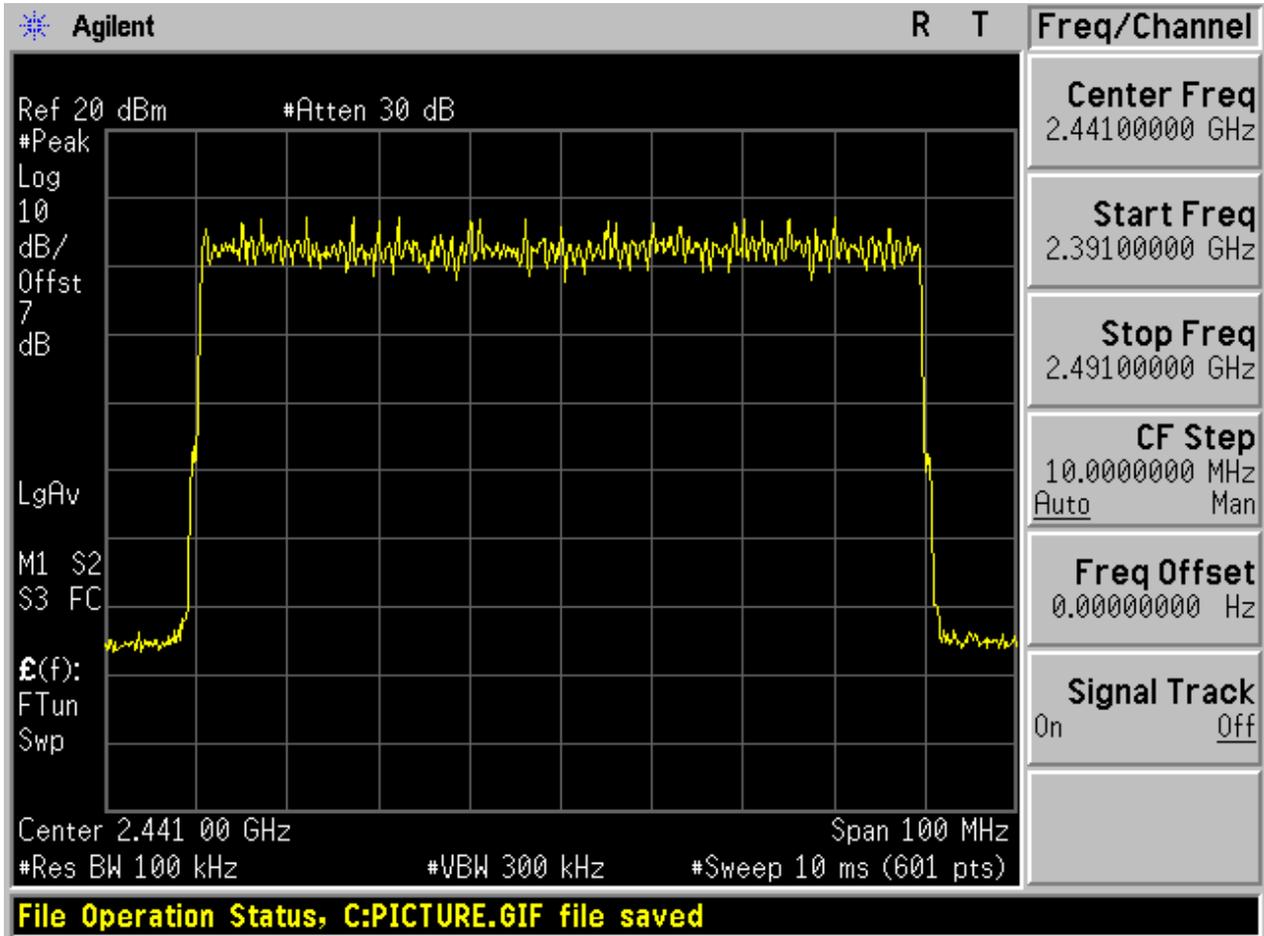
### 2.1 TM1\_DH5\_Hop



## 2.2 TM2\_2DH5\_Hop



2.3 TM3\_3DH5\_Hop





# Appendix D: Time of Occupancy (Dwell Time)

## 1 Result Table

The Dwell Time = Burst Width \* Total Hops. The detailed calculations are showed as follows:

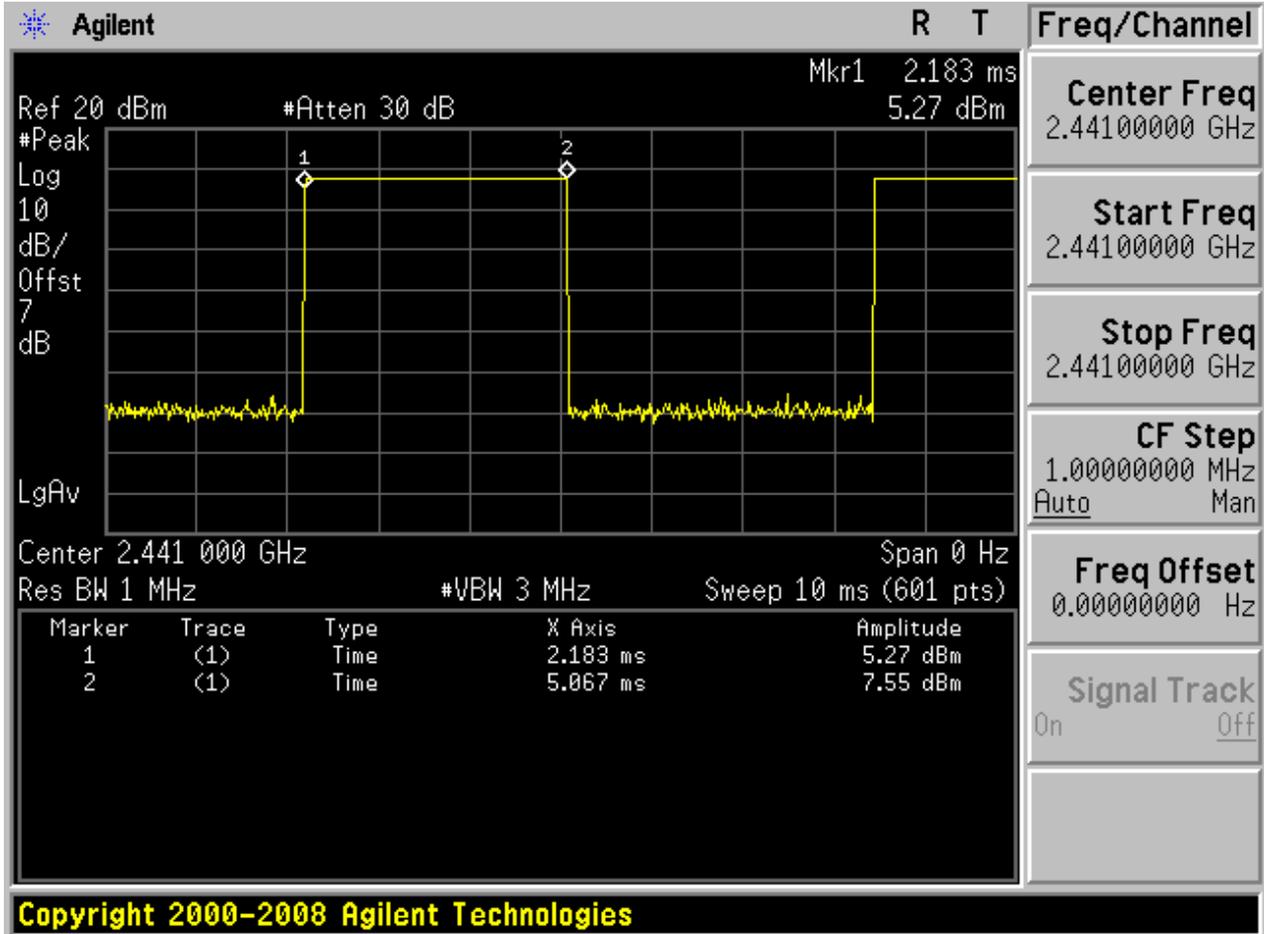
- The duration for dwell time calculation:  $0.4 \text{ [s]} * \text{hopping number} = 0.4 \text{ [s]} * 79 \text{ [ch]} = 31.6 \text{ [s*ch]}$ ;
- The burst width [ms/hop/ch], which is directly measured, refers to the duration on one channel hop.
- The hops per second for all channels: The selected EUT Conf uses a slot type of 5-Tx&1-Rx and a hopping rate of 1600 [ch\*hop/s] for all channels. So the final hopping rate for all channels is  $1600 / 6 = 266.67 \text{ [ch*hop/s]}$ ;
- The hops per second on one channel:  $266.67 \text{ [ch*hop/s]} / 79 \text{ [ch]} = 3.38 \text{ [hop/s]}$ ;
- The total hops for all channels within the dwell time calculation duration:  $3.38 \text{ [hop/s]} * 31.6 \text{ [s*ch]} = 106.67 \text{ [hop*ch]}$ ;
- The dwell time for all channels hopping:  $106.67 \text{ [hop*ch]} * \text{Burst Width [ms/hop/ch]}$ .

EUT Conf.	Burst Width [ms/hop/ch]	Total Hops [hop*ch]	Dwell Time [ms]	Verdict
TM1_DH5_Ch39	2.900	106.67	0.309	Pass
TM2_2DH5_Ch39	2.900	106.67	0.309	Pass
TM3_3DH5_Ch39	2.900	106.67	0.309	Pass

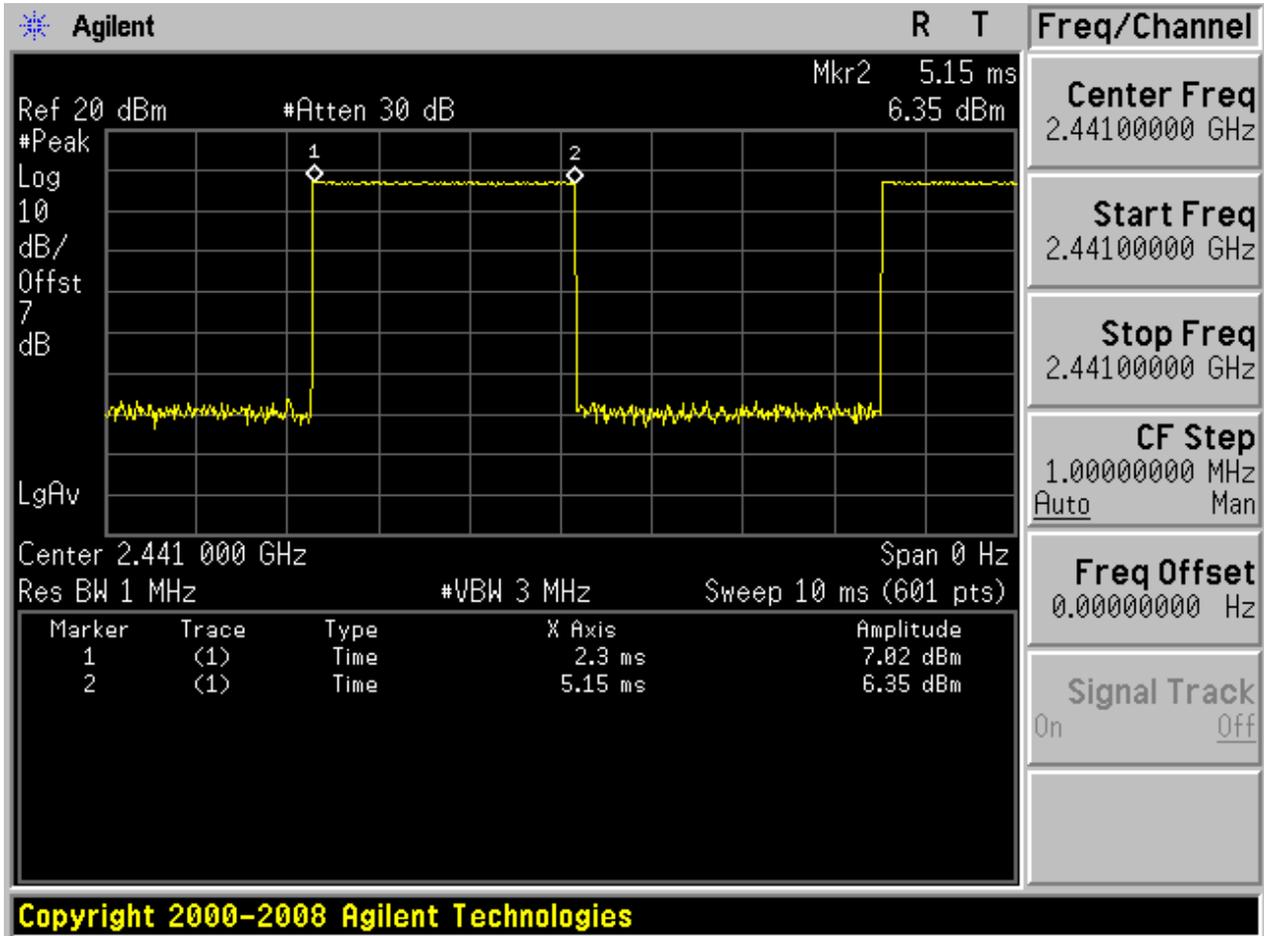
## 2 Test Plot

NOTE: The test plots are only for Burst Width measurements.

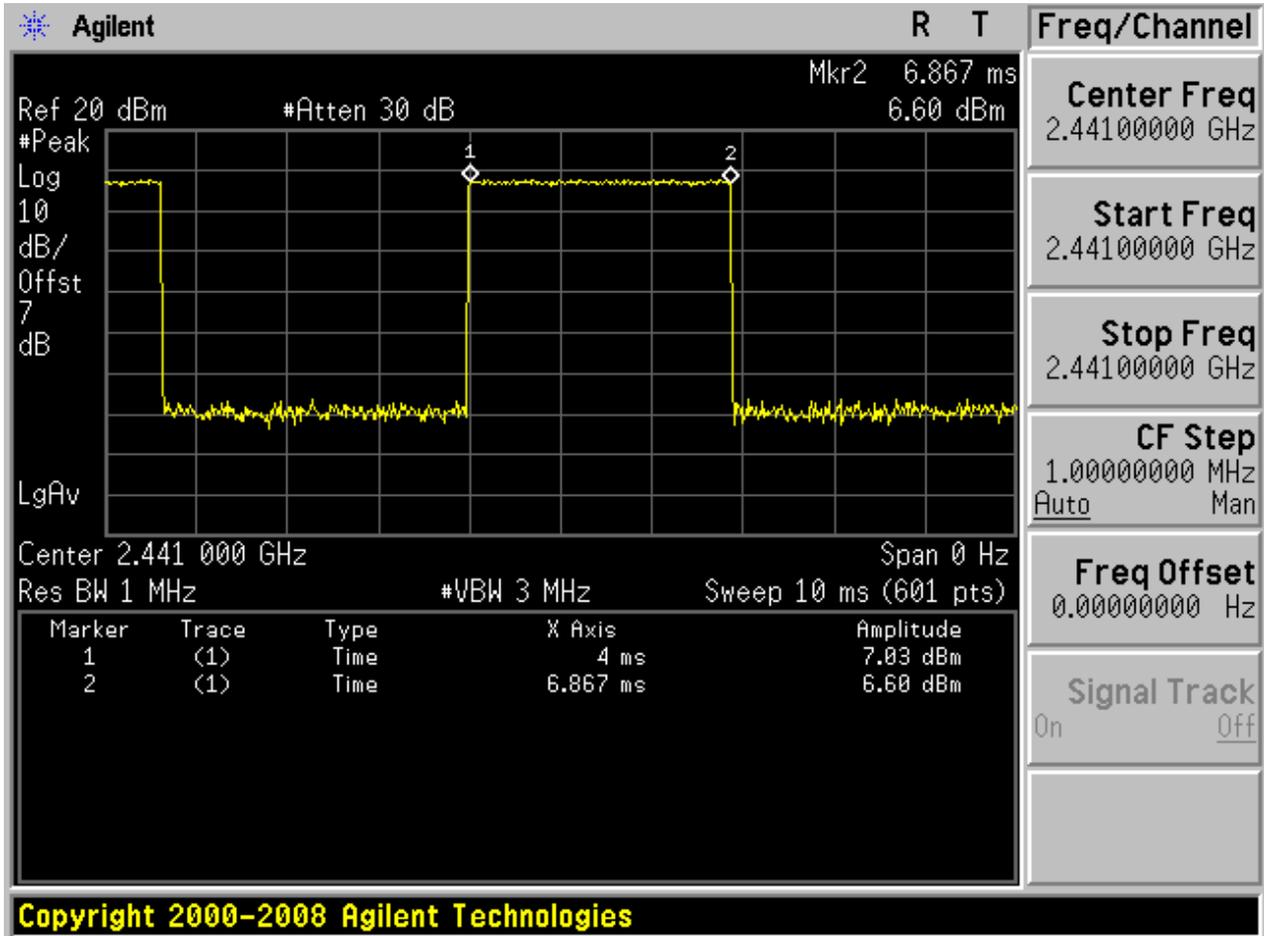
### 2.1 TM1\_DH5\_Ch39



2.2 TM2\_2DH5\_Ch39



2.3 TM3\_3DH5\_Ch39





# Appendix E: Maximum Peak Conducted Output Power

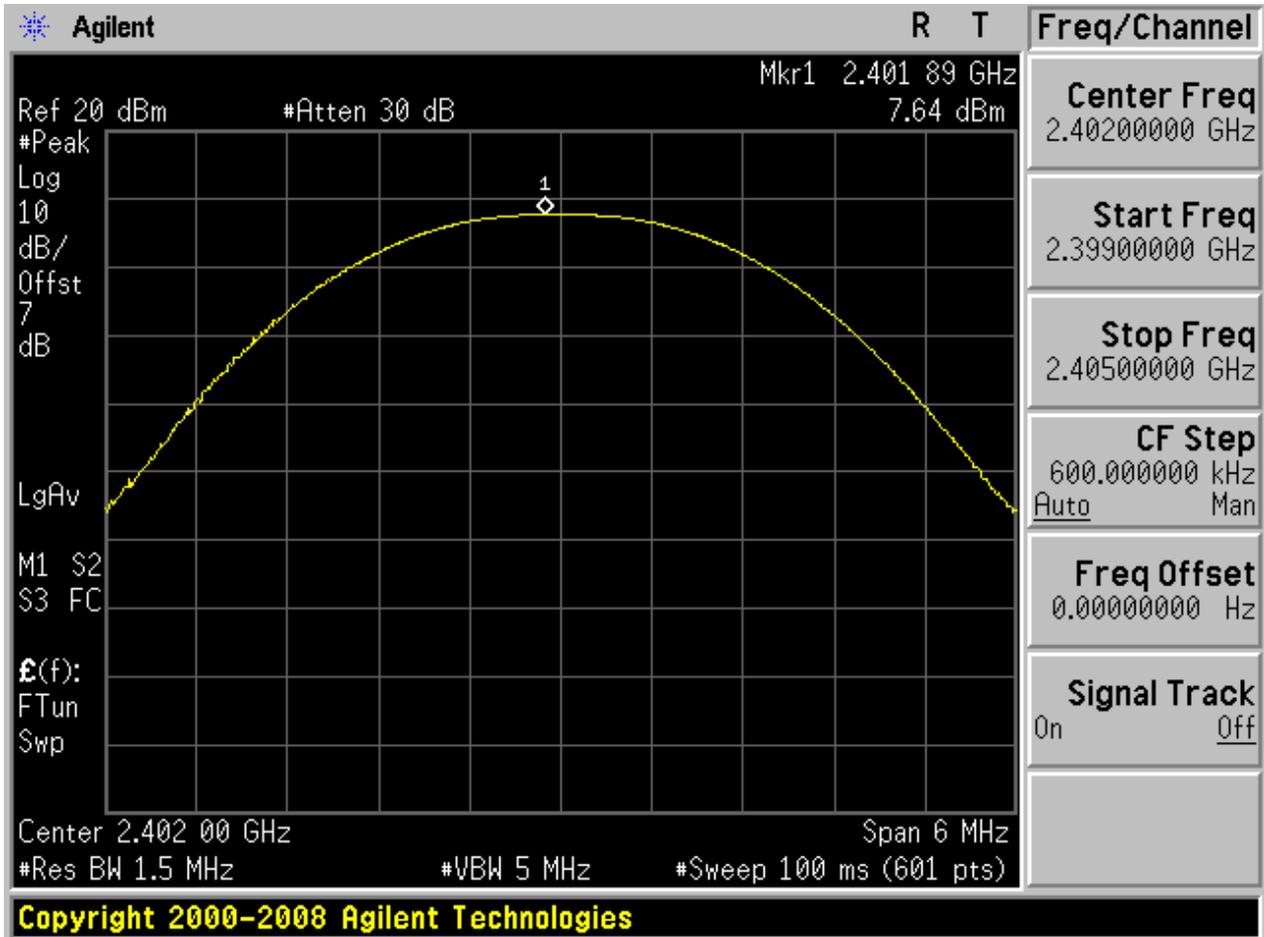


## 1 Result Table

EUT Conf.	Max. Peak Power [dBm]	Verdict
TM1_DH5_Ch0	7.64	Pass
TM1_DH5_Ch39	7.74	Pass
TM1_DH5_Ch78	7.97	Pass
TM2_2DH5_Ch0	7.42	Pass
TM2_2DH5_Ch39	7.52	Pass
TM2_2DH5_Ch78	7.73	Pass
TM3_3DH5_Ch0	7.55	Pass
TM3_3DH5_Ch39	7.67	Pass
TM3_3DH5_Ch78	7.88	Pass

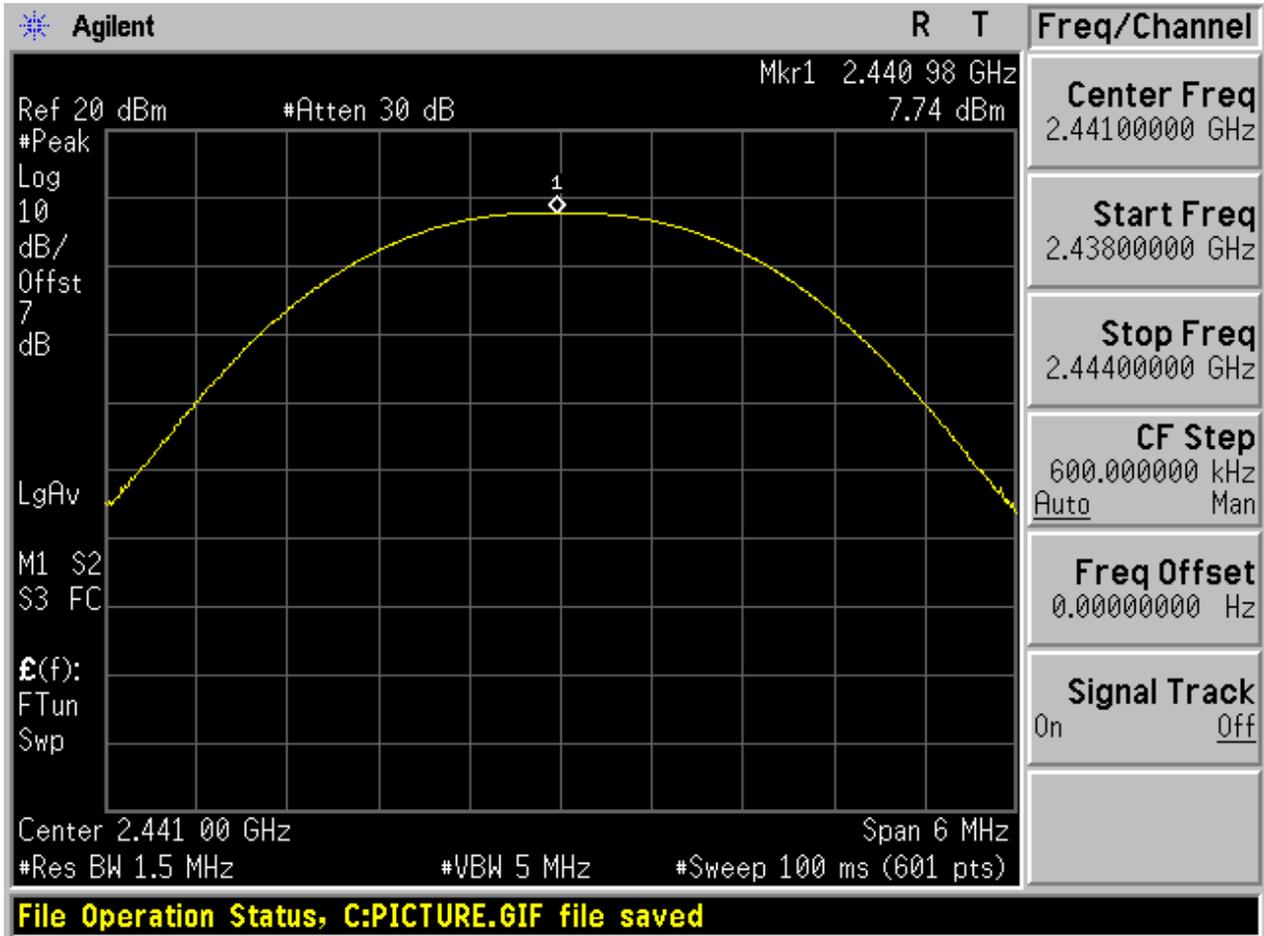
## 2 Test Plot

### 2.1 TM1\_DH5\_Ch0

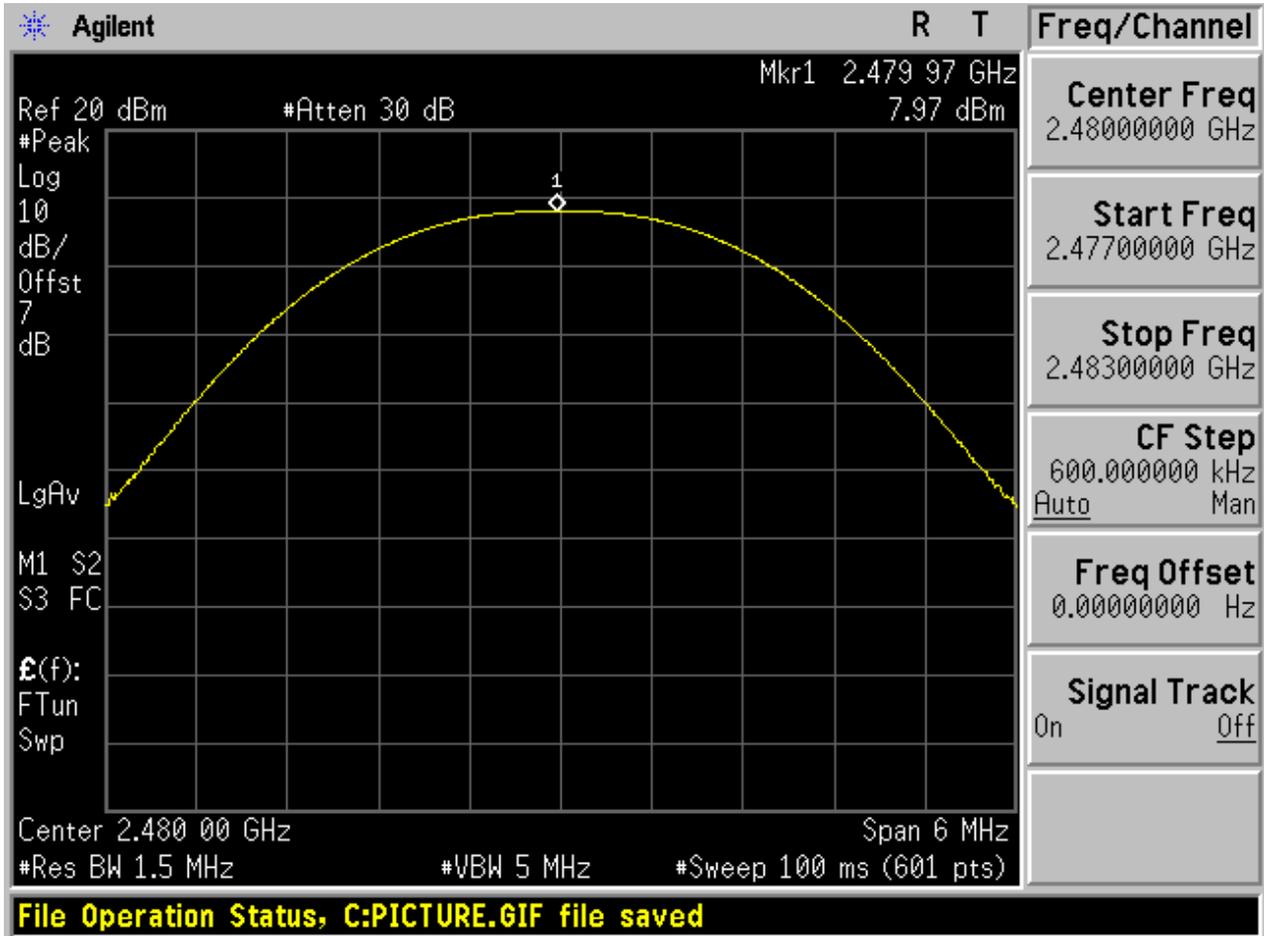




## 2.2 TM1\_DH5\_Ch39

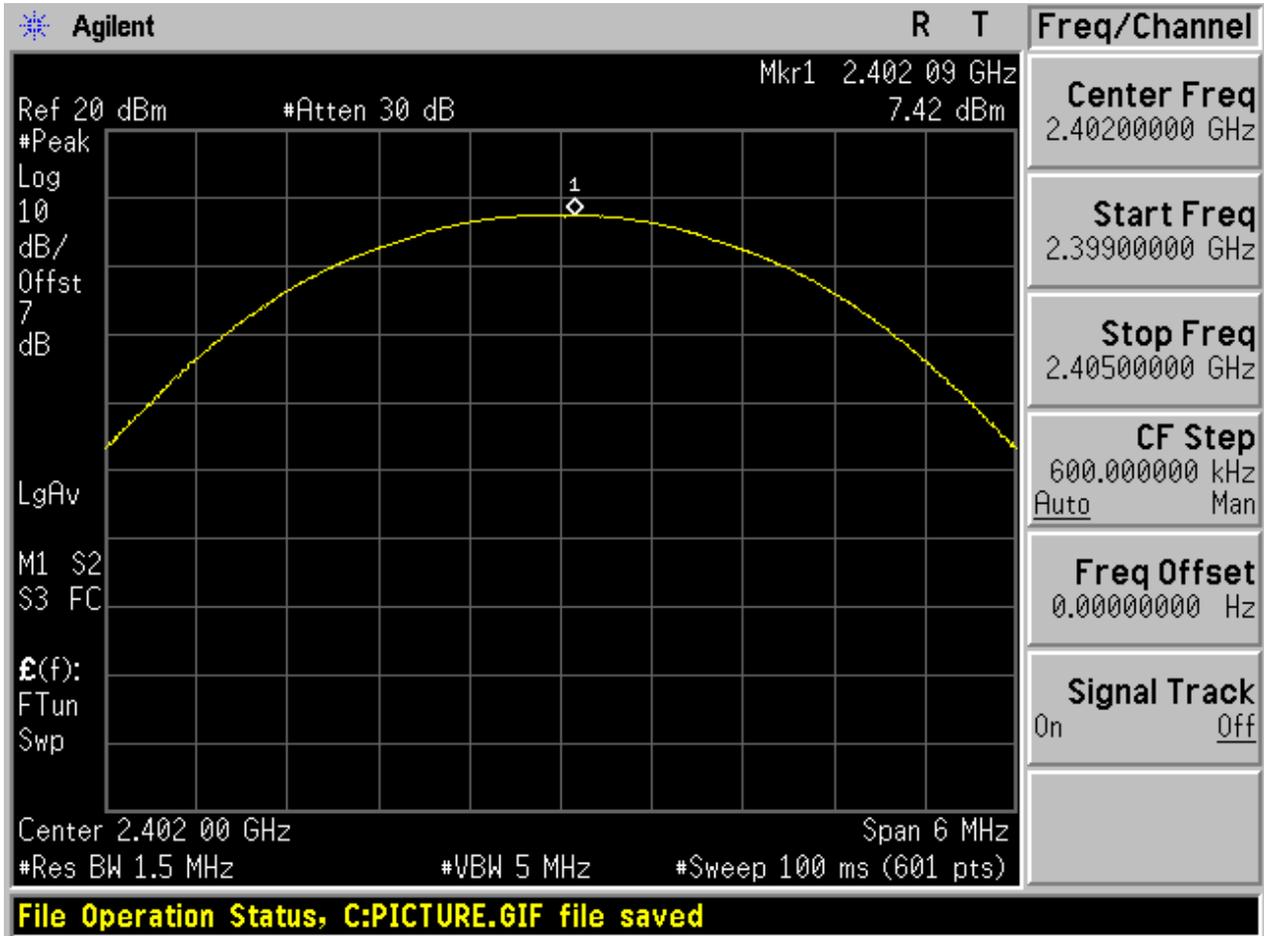


2.3 TM1\_DH5\_Ch78

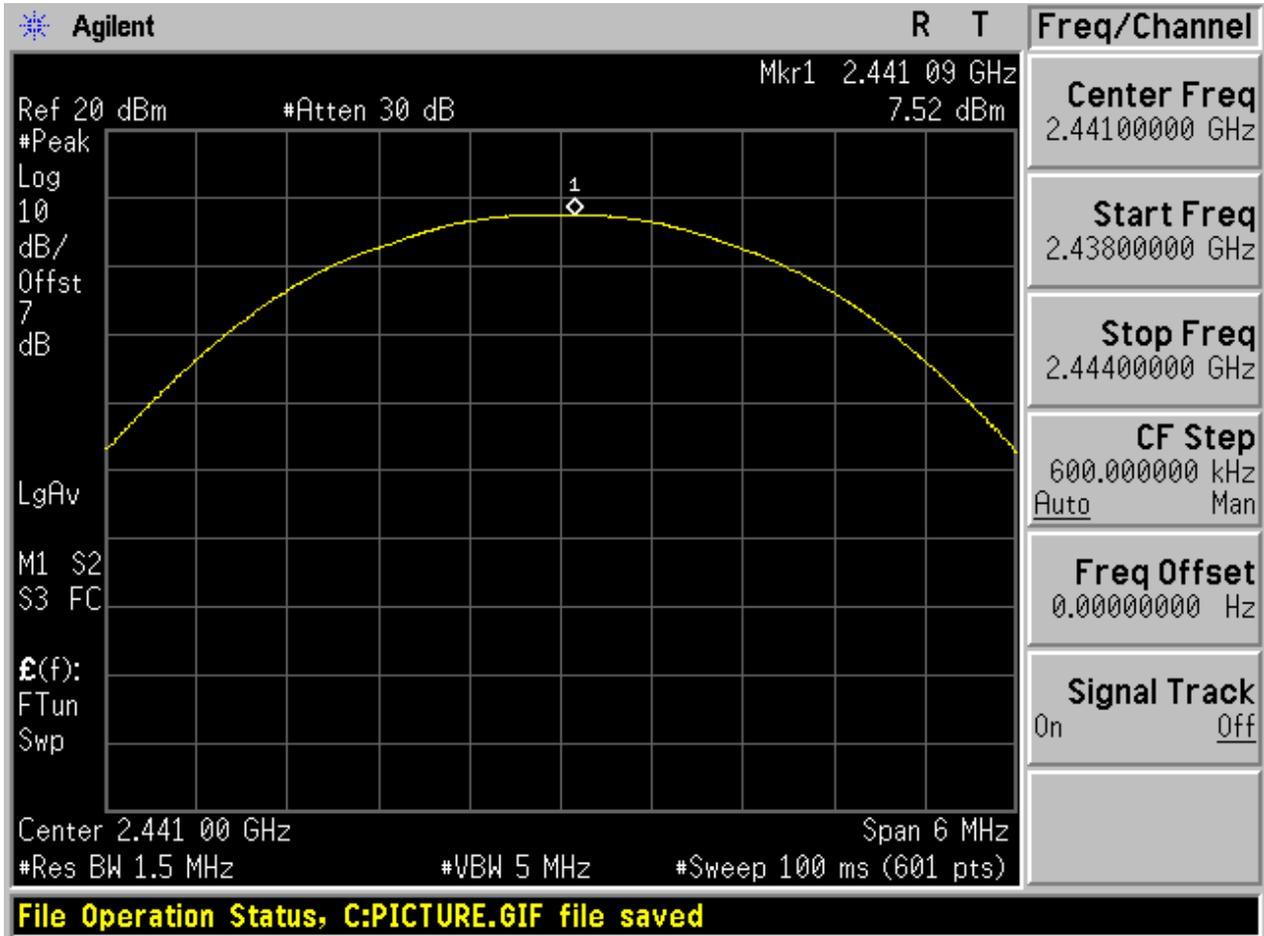




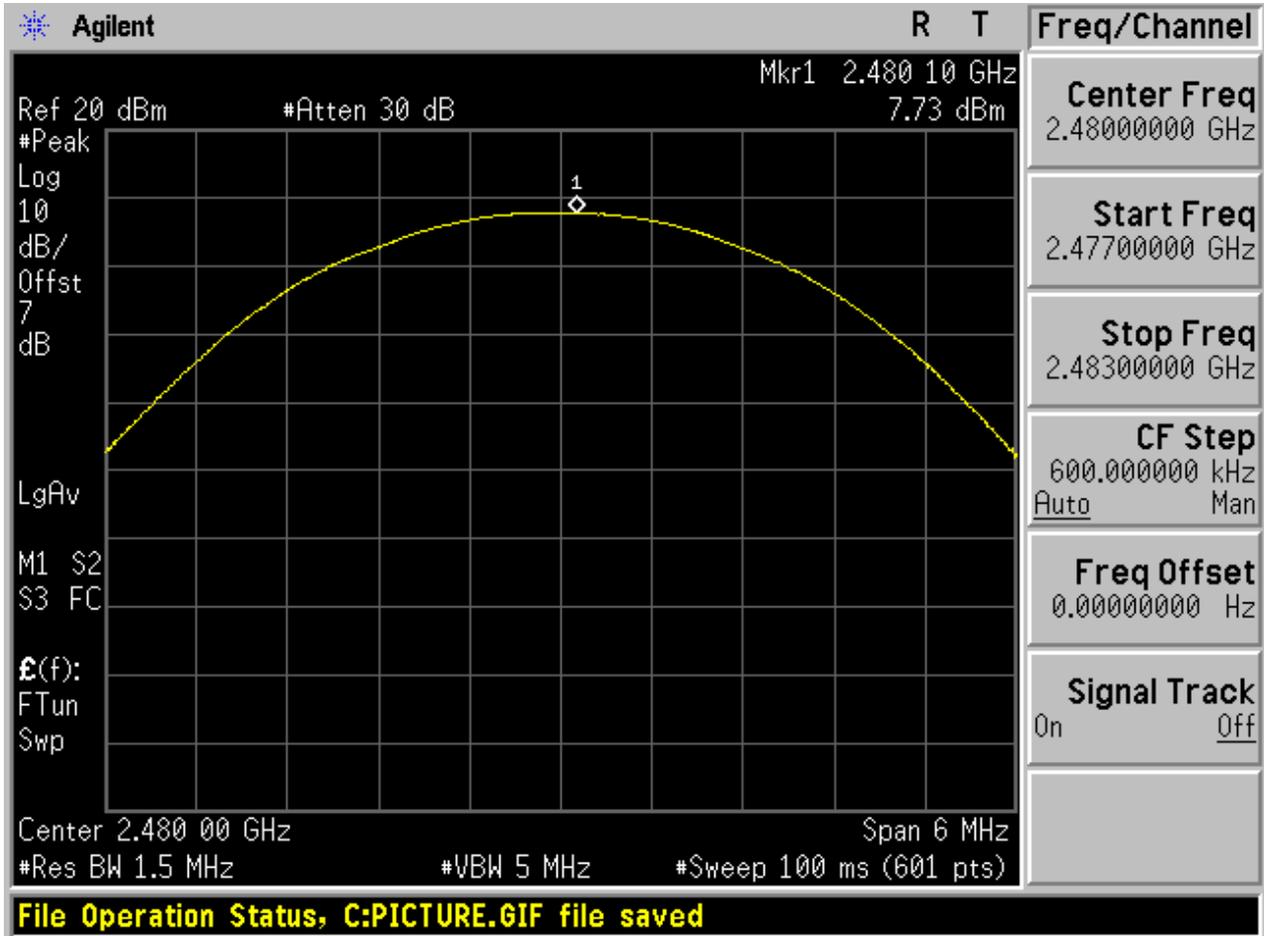
2.4 TM2\_2DH5\_Ch0



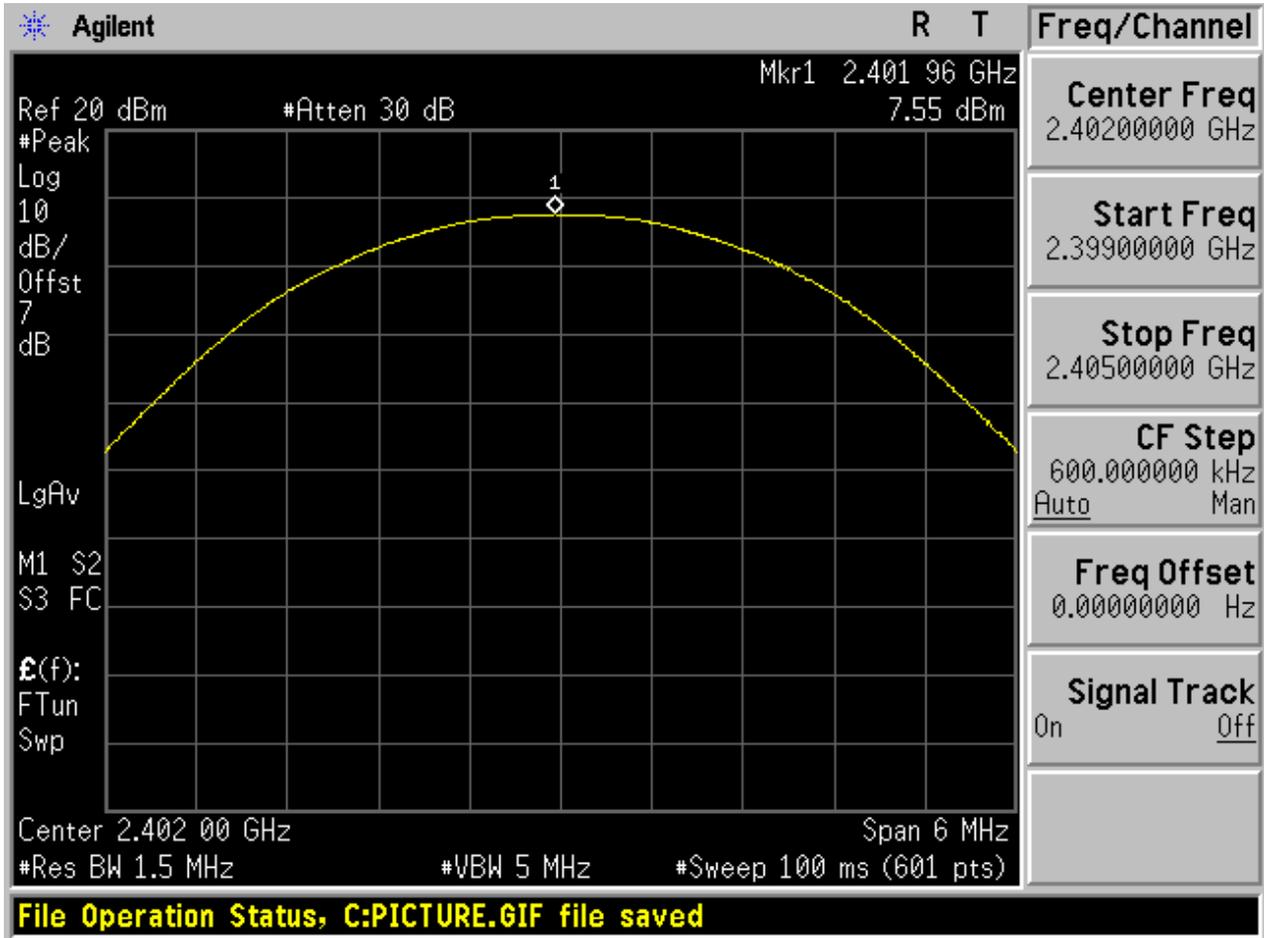
2.5 TM2\_2DH5\_Ch39



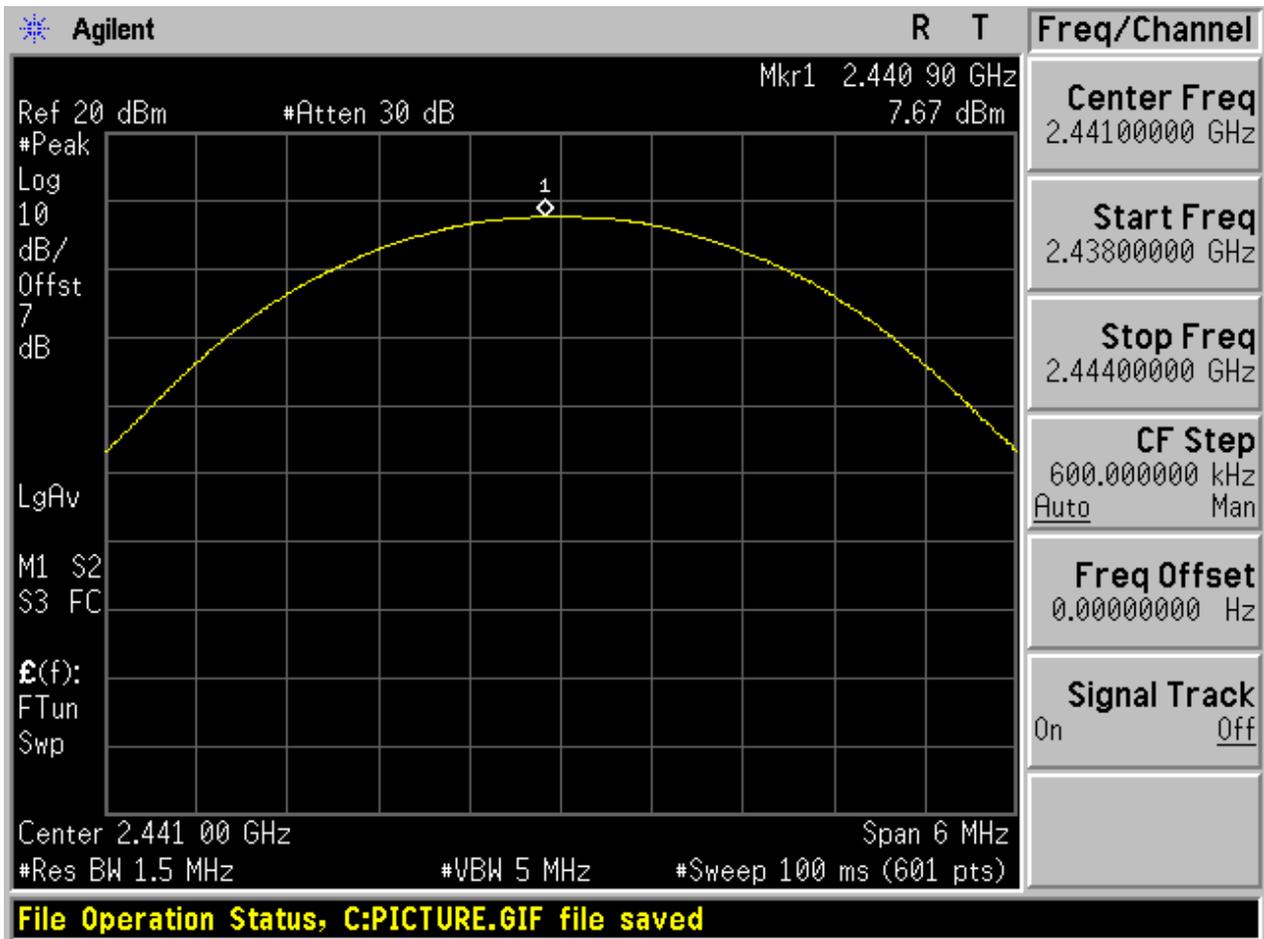
2.6 TM2\_2DH5\_Ch78



2.7 TM3\_3DH5\_Ch0

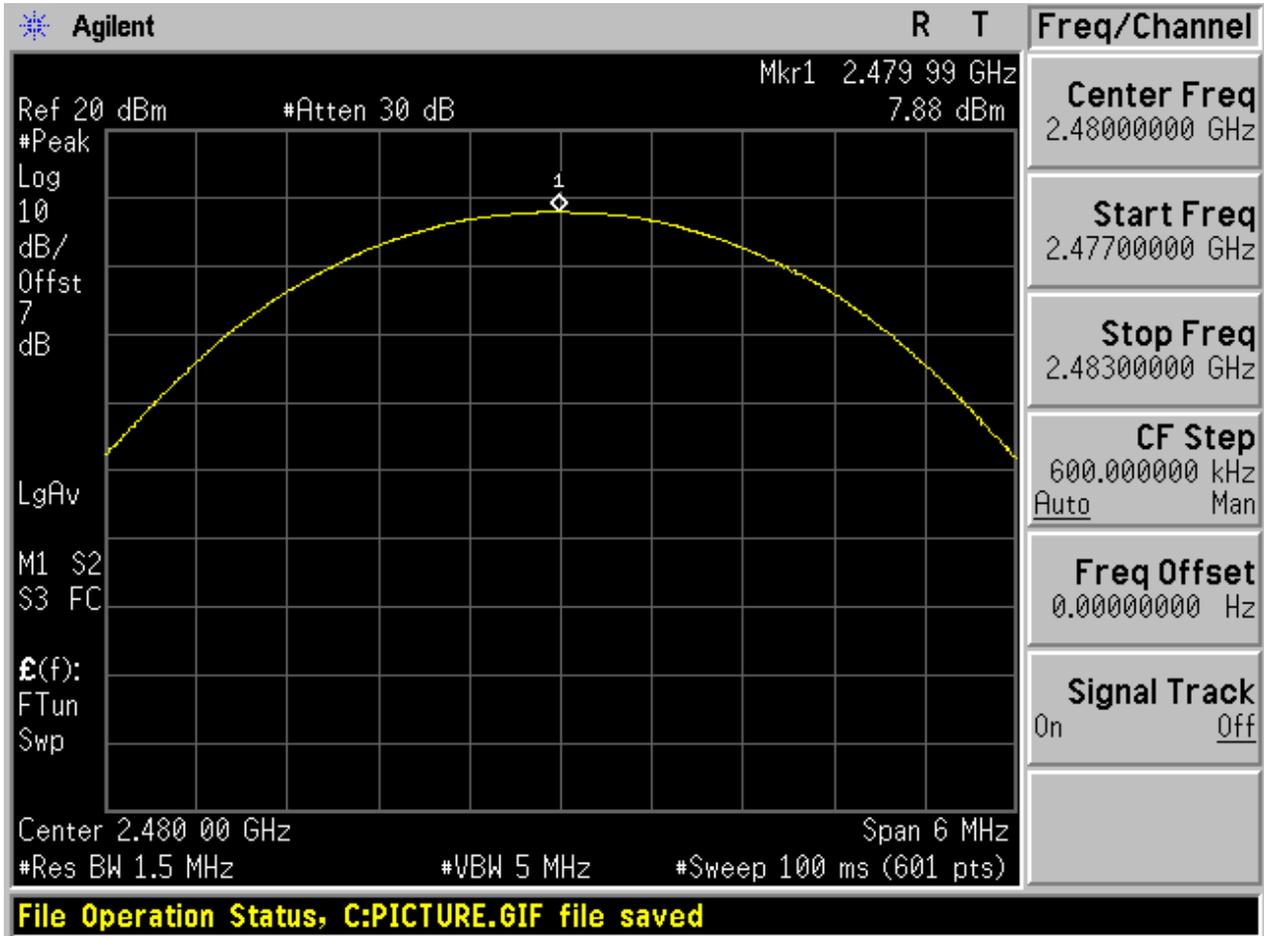


2.8 TM3\_3DH5\_Ch39





2.9 TM3\_3DH5\_Ch78





# Appendix F: Band edge spurious emission



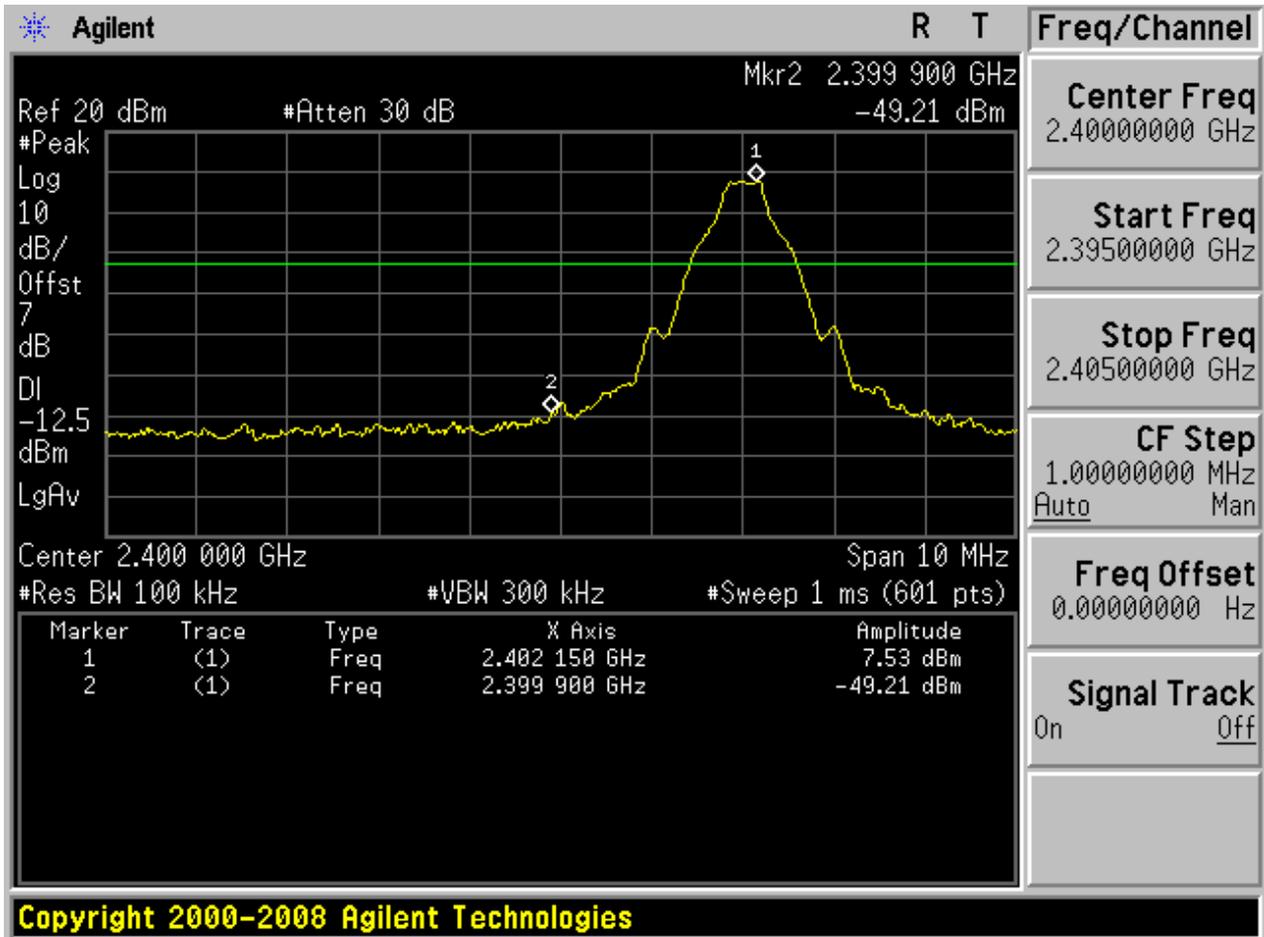
## 1 Result Table

EUT Conf.	Channel No.	Carrier Frequency [MHz]	Max. Spurious Level [dBm]	Frequency Hopping	Carrier Power [dBm]	Limit [dBm]	Result
TM1_DH5 _Ch0	0	2402	-49.21	Off	7.53	-12.47	Pass
	-	-	-53.12	On	7.30	-12.7	Pass
TM1_DH5 _Ch78	78	2480	-52.46	Off	7.88	-12.12	Pass
	-	-	-51.96	On	7.51	-12.49	Pass
TM2_2DH 5_Ch0	0	2402	-48.13	Off	6.81	-13.19	Pass
	-	-	-52.4	On	6.17	-13.83	Pass
TM2_2DH 5_Ch78	78	2480	-51.95	Off	7.13	-12.87	Pass
	-	-	-53.72	On	3.82	-16.18	Pass
TM3_3DH 5_Ch0	0	2402	-48.47	Off	6.82	-13.18	Pass
	-	-	-50.33	On	5.43	-14.57	Pass
TM3_3DH 5_Ch78	78	2480	-51.09	Off	7.12	-12.88	Pass
	-	-	-53.44	On	6.14	-13.86	Pass

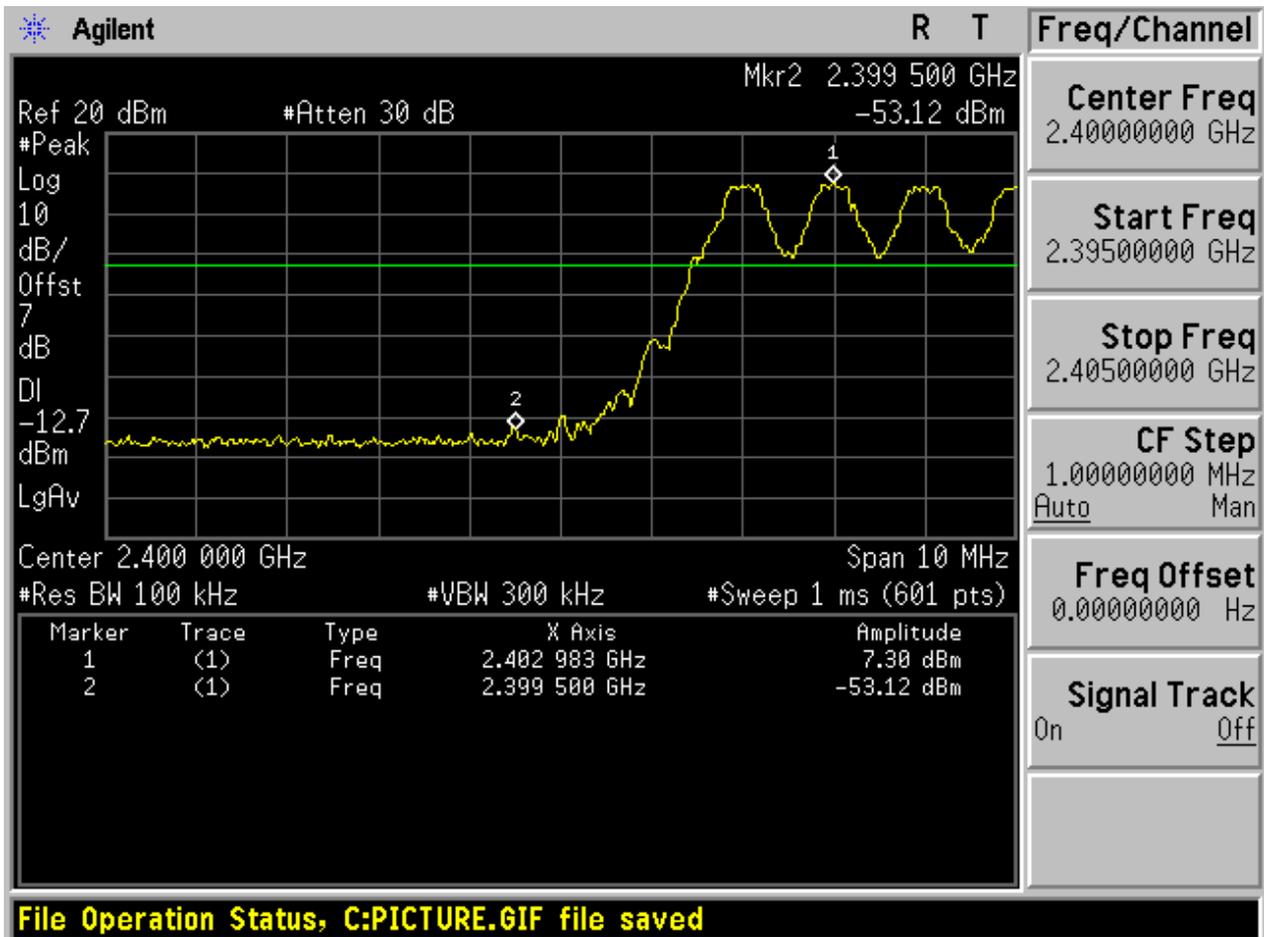
## 2 Test Plot

### 2.1 TM1\_DH5\_Ch0

No hopping

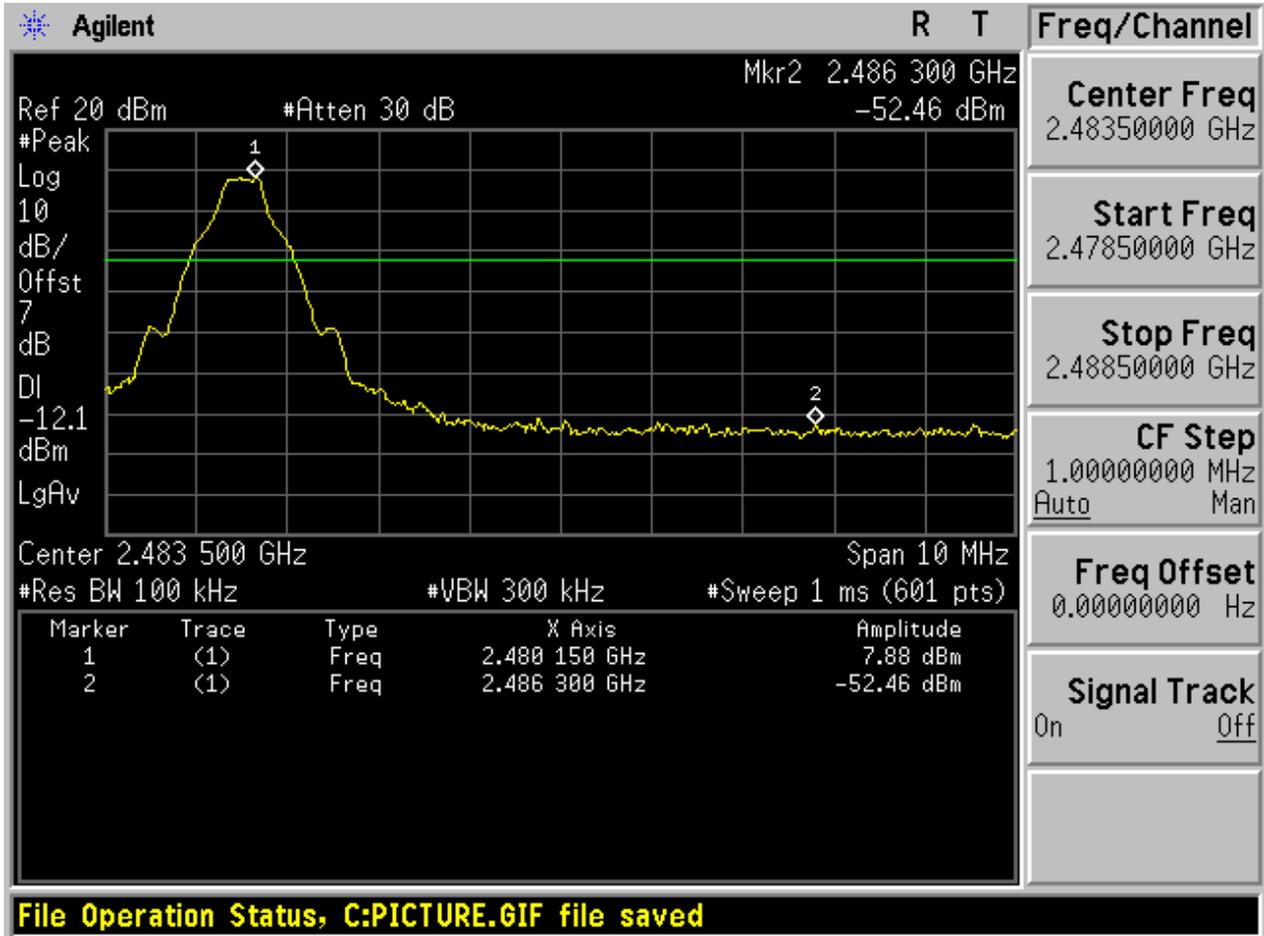


With hopping

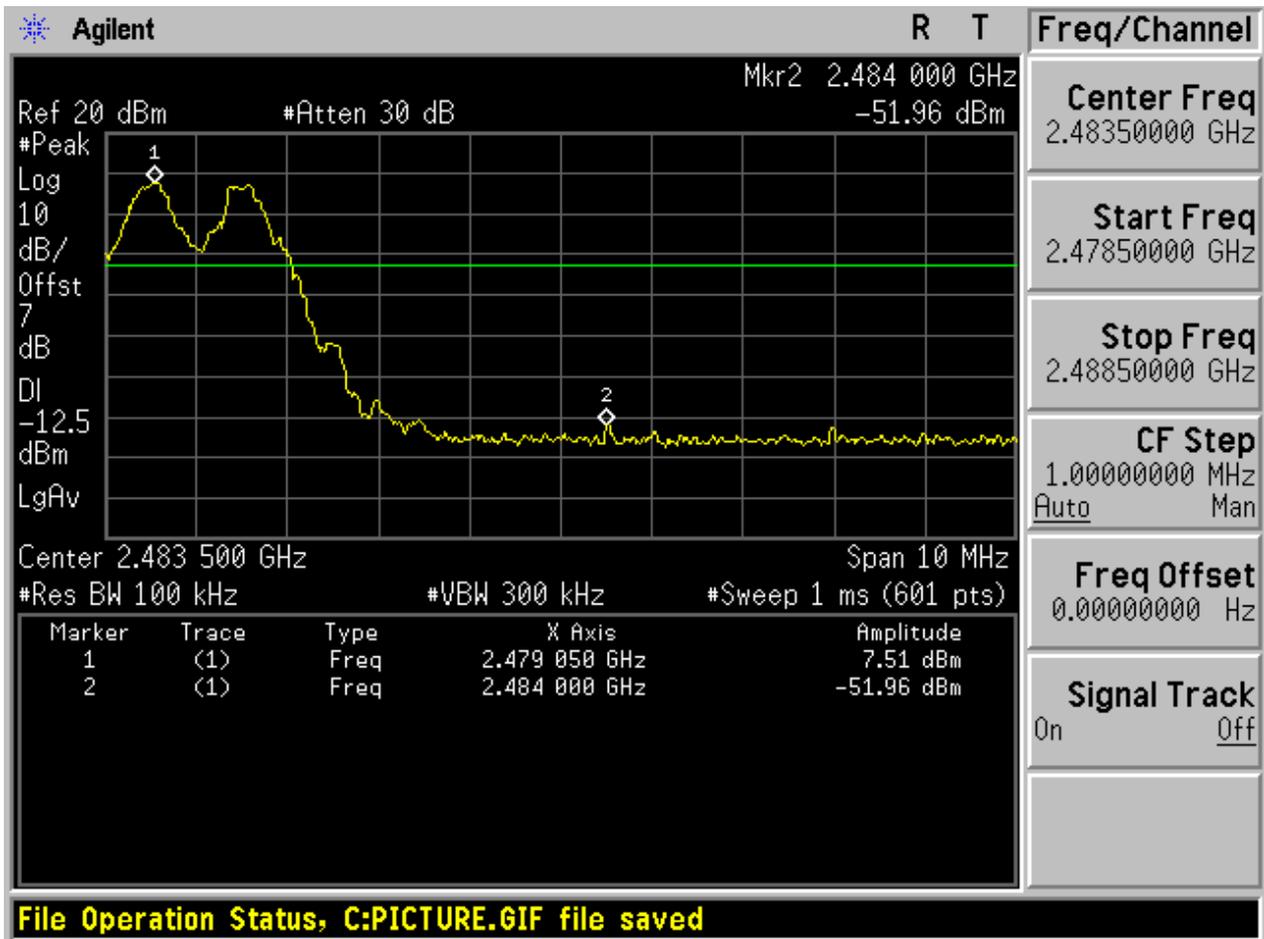


2.2 TM1\_DH5\_Ch78

No hopping

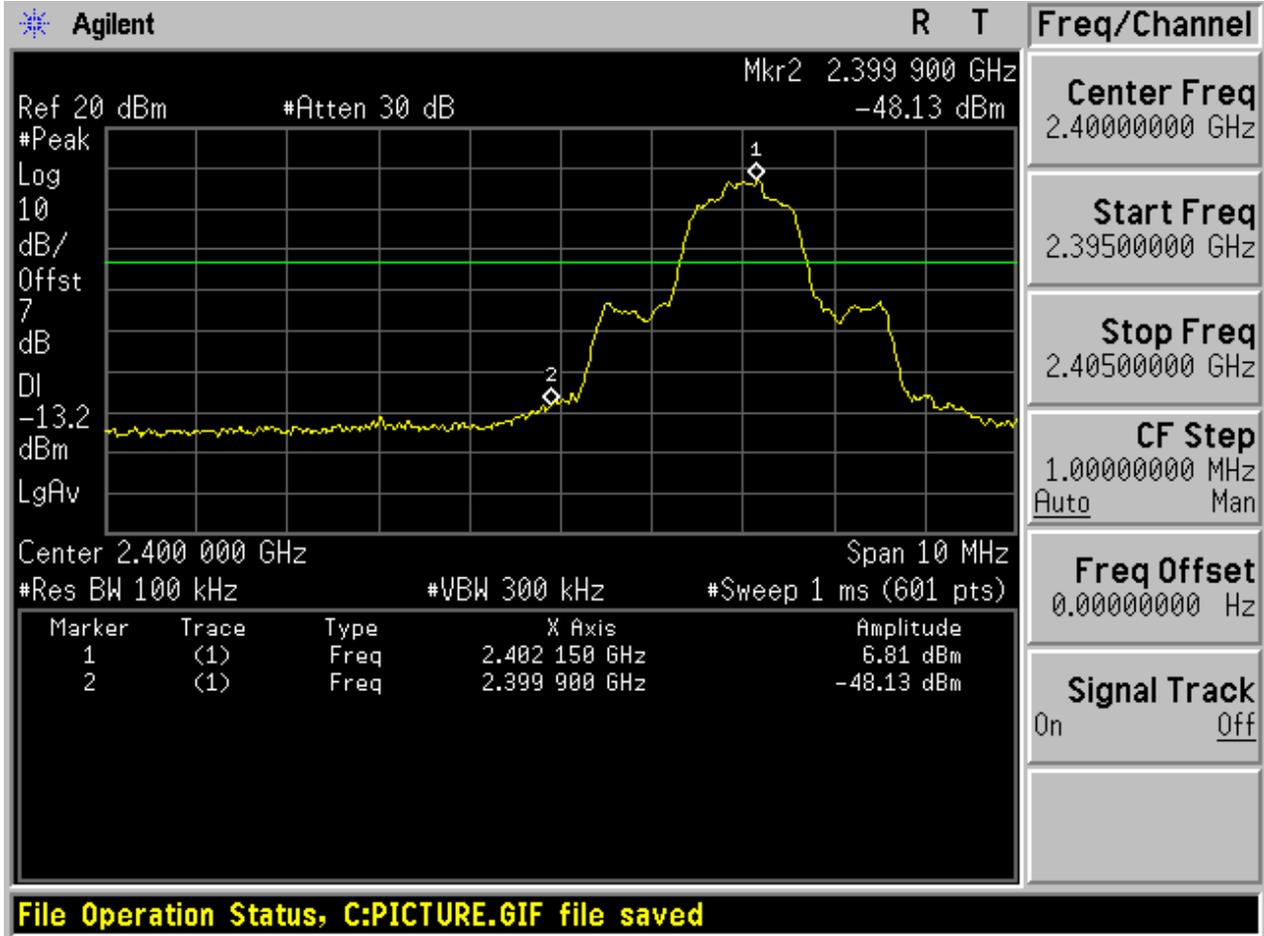


With hopping

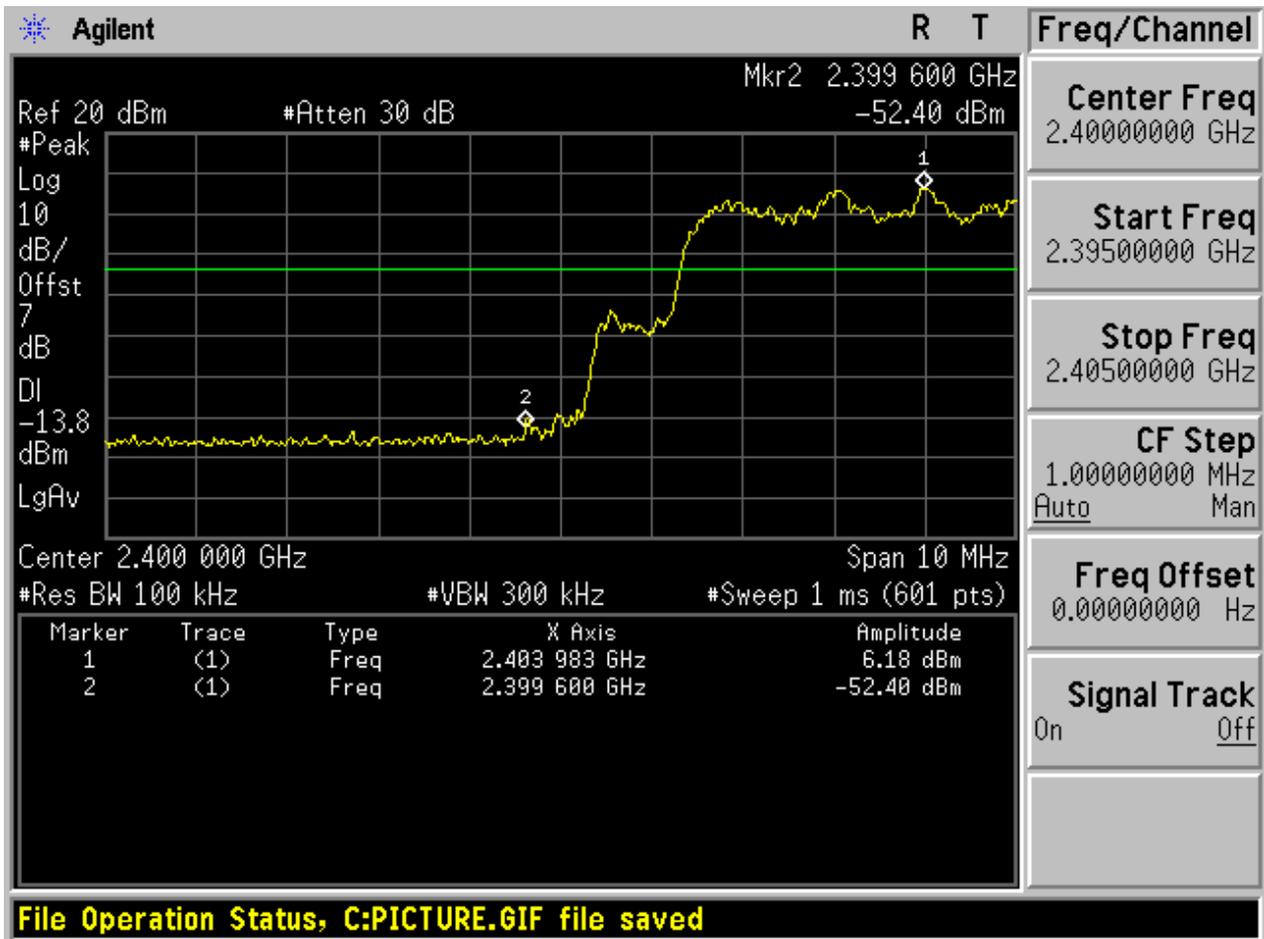


2.3 TM2\_2DH5\_Ch0

No hopping

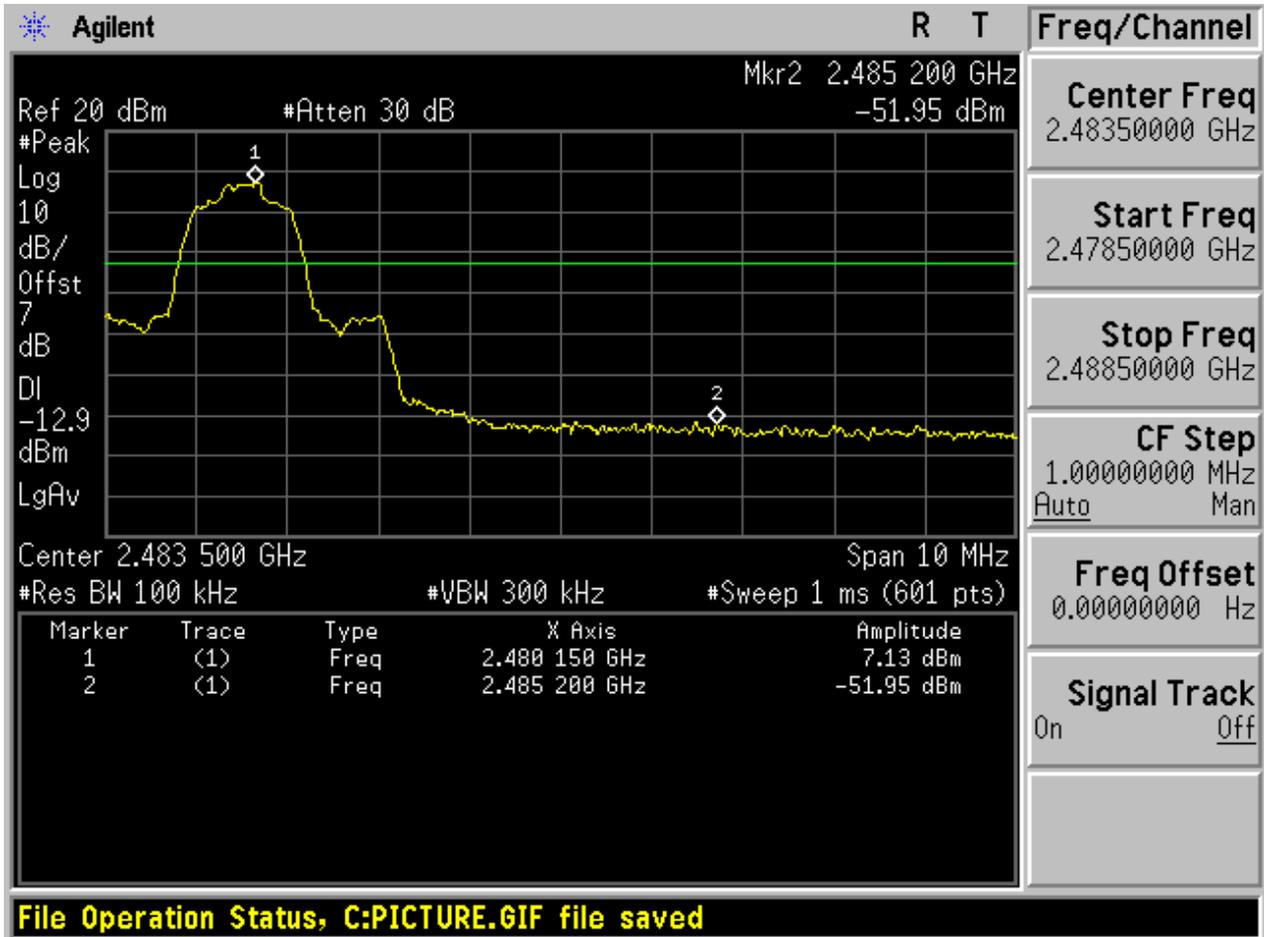


With hopping

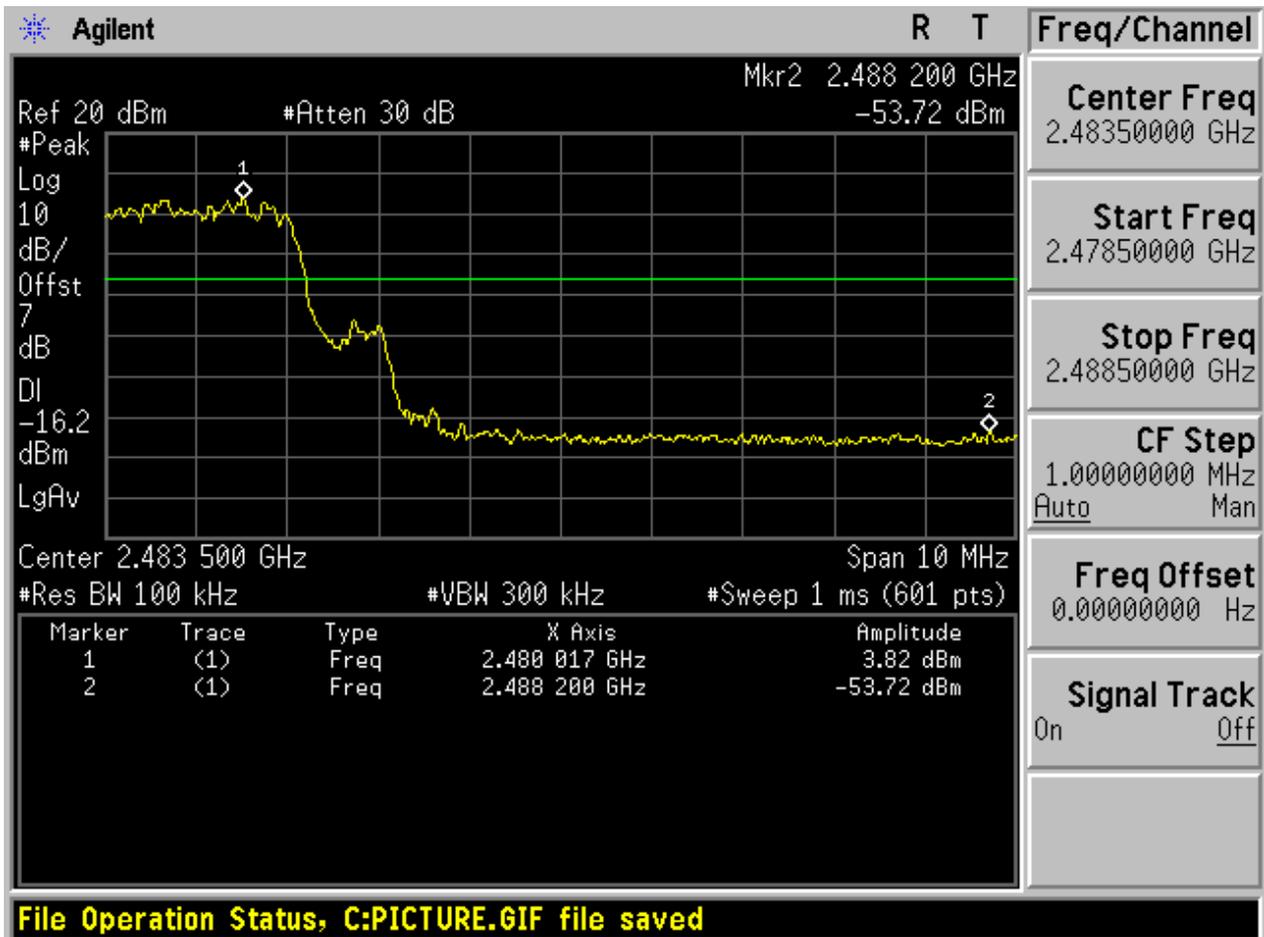


2.4 TM2\_2DH5\_Ch78

No hopping

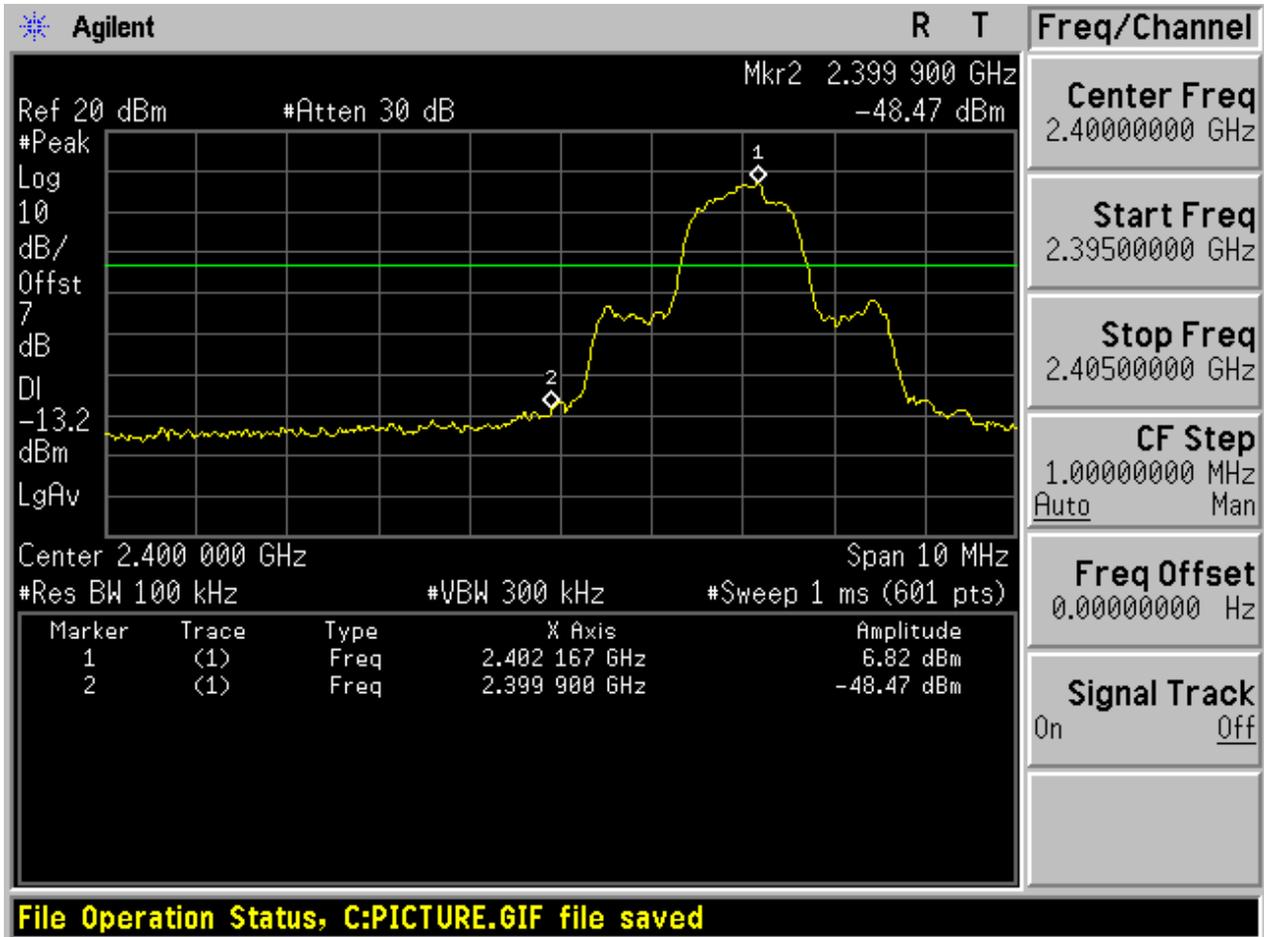


With hopping

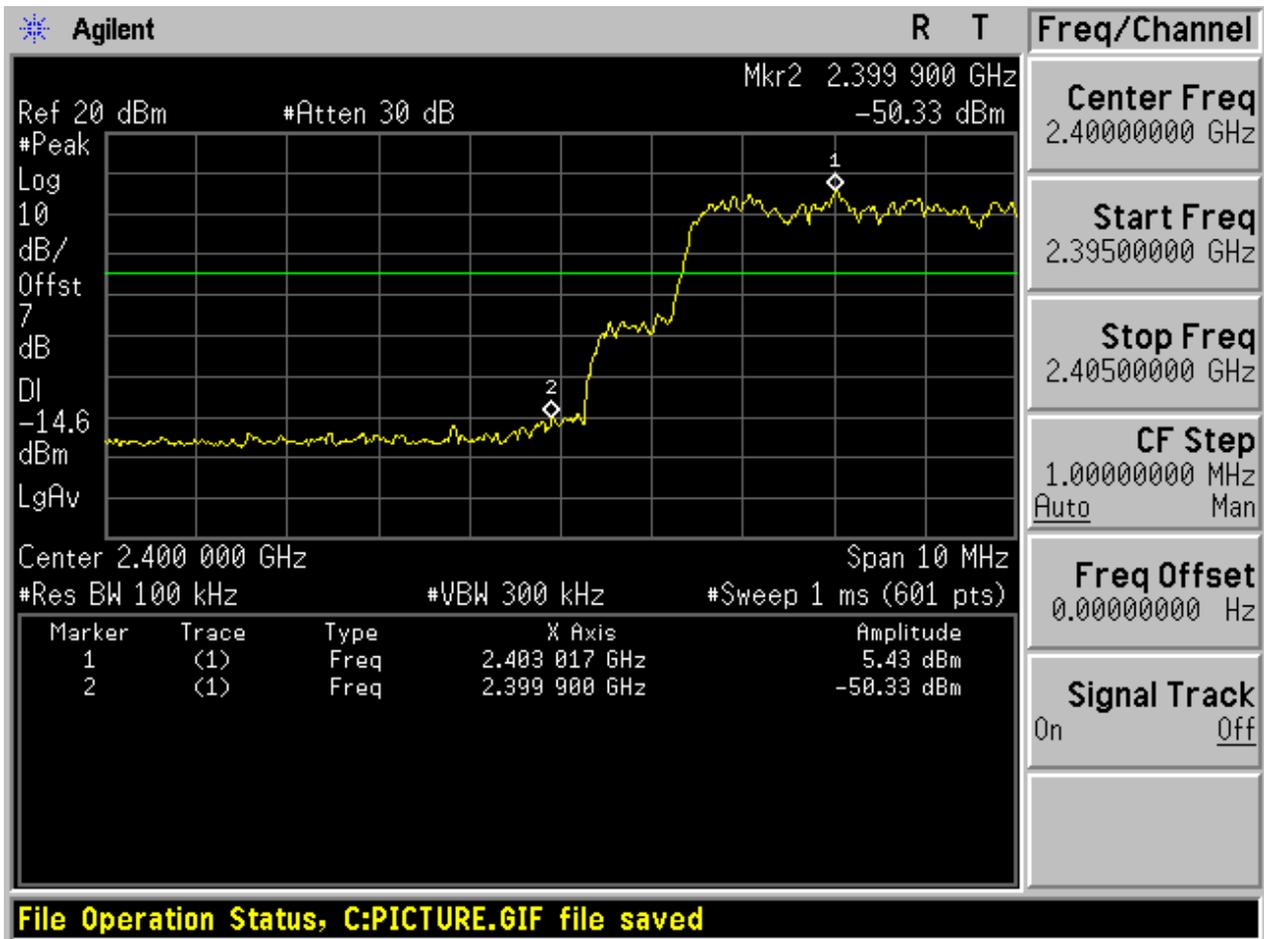


2.5 TM3\_3DH5\_Ch0

No hopping

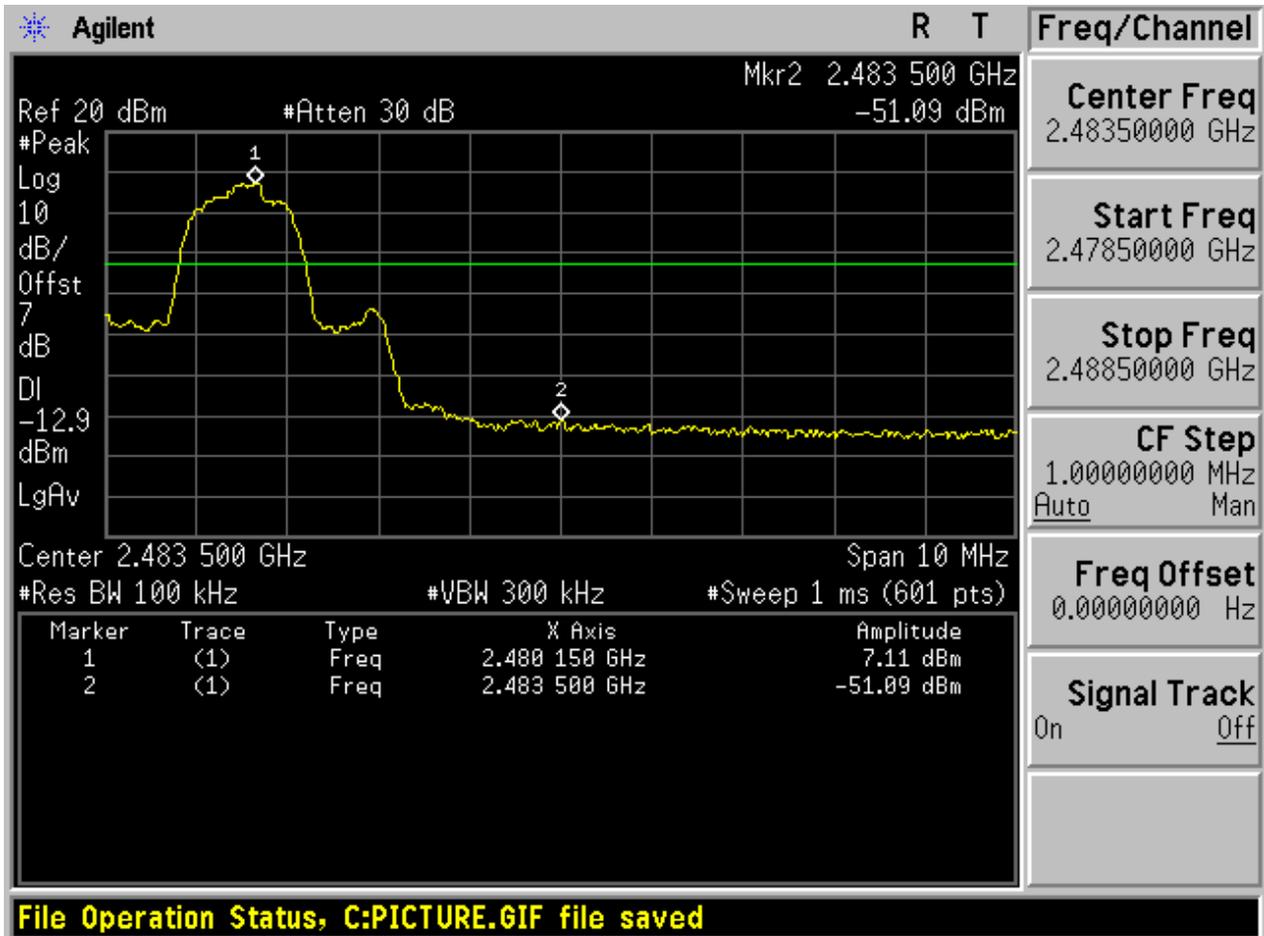


With hopping

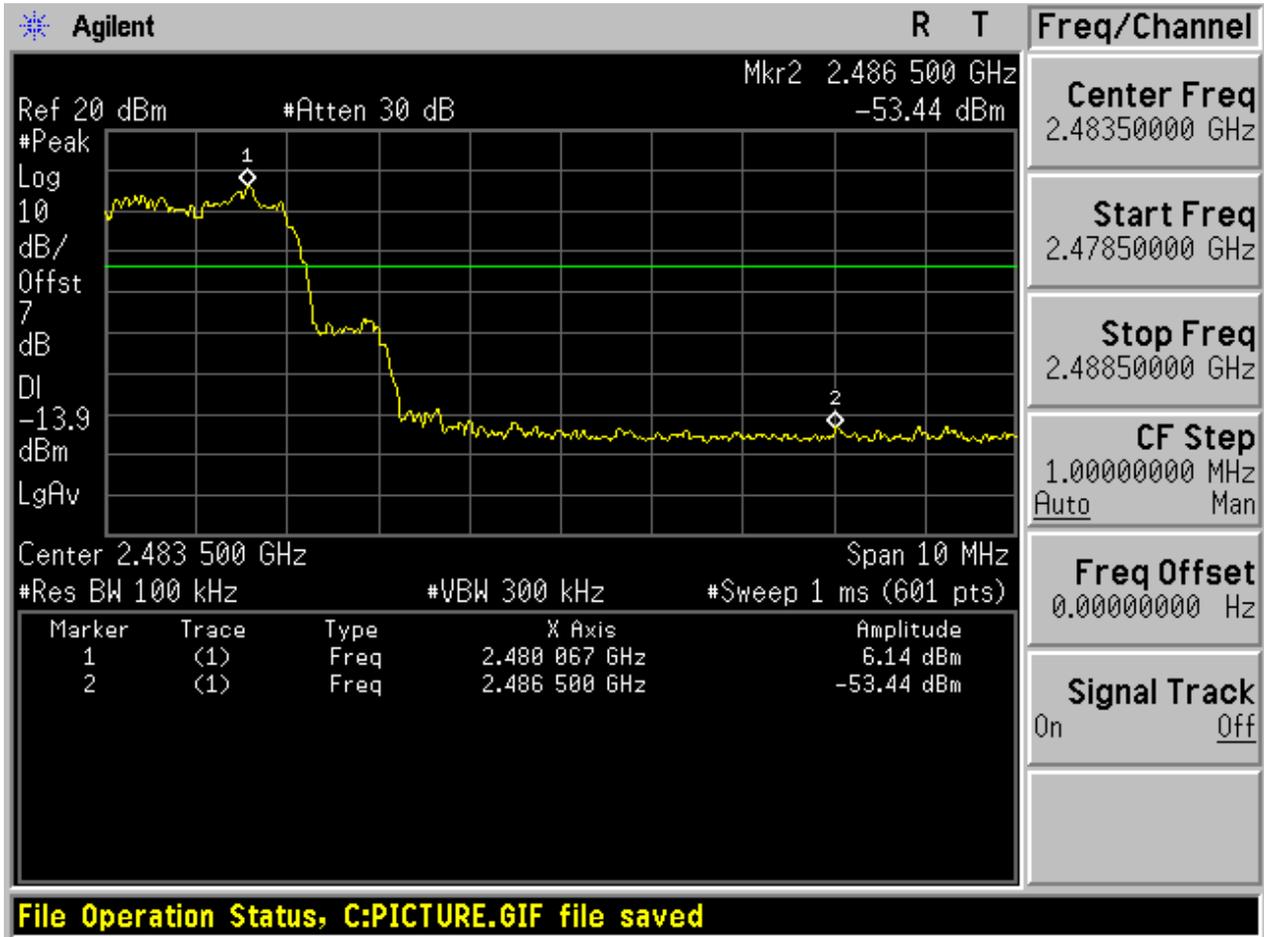


2.6 TM3\_3DH5\_Ch78

No hopping



With hopping





# Appendix G: Conducted RF Spurious Emission



## 1 Result Table

In this Appendix, the “Pref” refers to the peak power level in any 100 kHz bandwidth within the fundamental emission which is used as the reference level, the “Puw” refers to the maximum emission power in 100 kHz band segments outside of the authorized frequency band.

Considering that the higher ratio of RBW to the span for the frequency ranges below 30 MHz makes the results determination be complicated, a narrower RBW other than 100 kHz is used for these ranges. The measured value should add a RBW correction factor (RBWCF) where  $RBWCF [dB] = 10 \times \lg(100 [kHz]/narrower\ RBW [kHz])$ . As to this Appendix, the narrower RBW is 1 kHz and RBWCF is 20 dB for the frequency 9 kHz to 150 kHz, and the narrower RBW is 10 kHz and RBWCF is 10 dB for the frequency 150 kHz to 30 MHz.

In the result table, the “< Limit” denotes that “The Puw [dBm] is less than Pref [dBm] - 20 [dB], see test plots for detailed”.

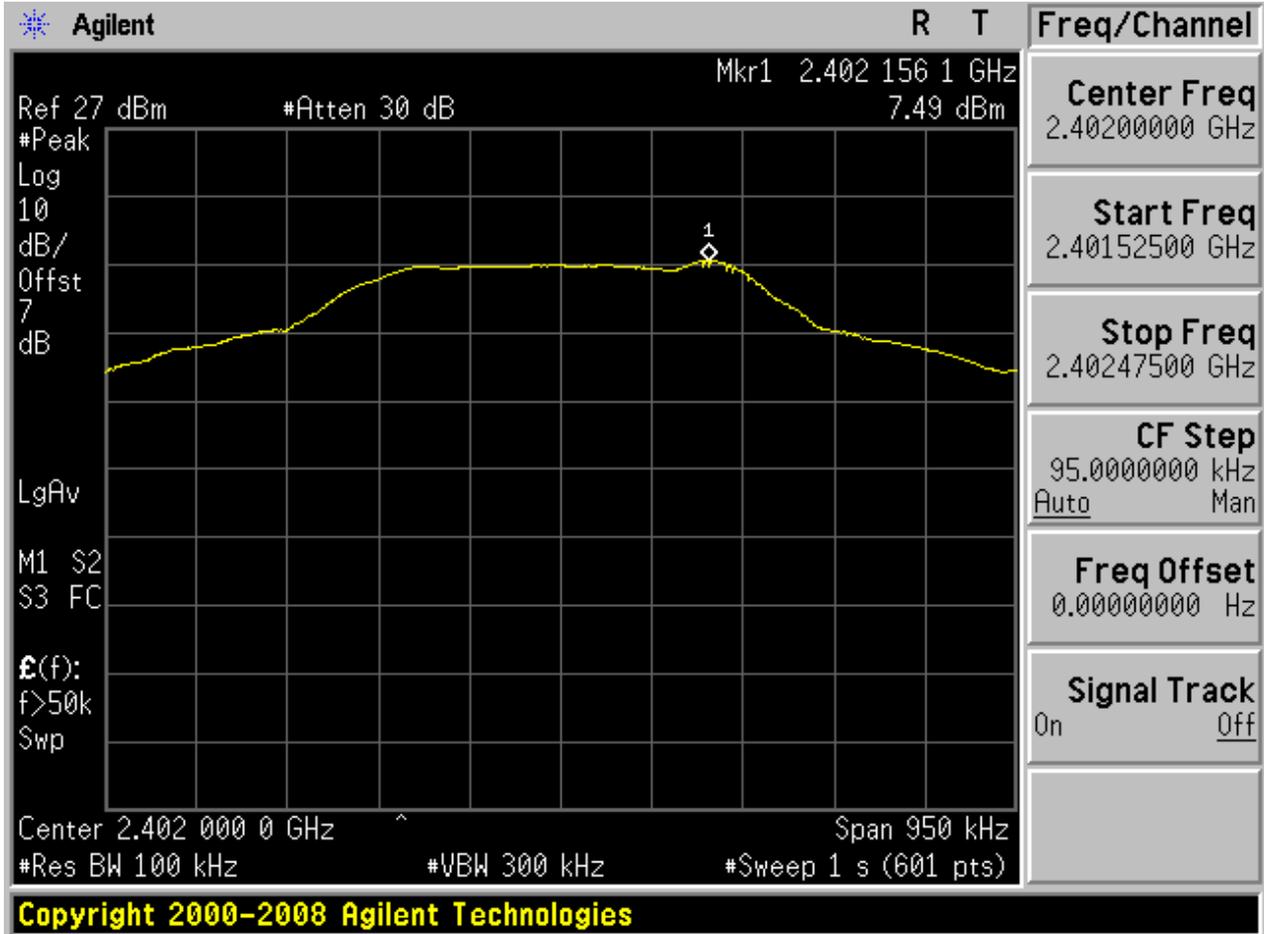
EUT Conf.	Pref [dBm/100 kHz]	Puw [dBm/100 kHz]	Verdict
TM1_DH5_Ch0	7.49	< Limit	Pass
TM1_DH5_Ch39	7.59	< Limit	Pass
TM1_DH5_Ch78	7.84	< Limit	Pass
TM2_2DH5_Ch0	6.77	< Limit	Pass
TM2_2DH5_Ch39	6.93	< Limit	Pass
TM2_2DH5_Ch78	7.11	< Limit	Pass
TM3_3DH5_Ch0	6.79	< Limit	Pass
TM3_3DH5_Ch39	6.93	< Limit	Pass
TM3_3DH5_Ch78	7.11	< Limit	Pass



## 2 Test Plot

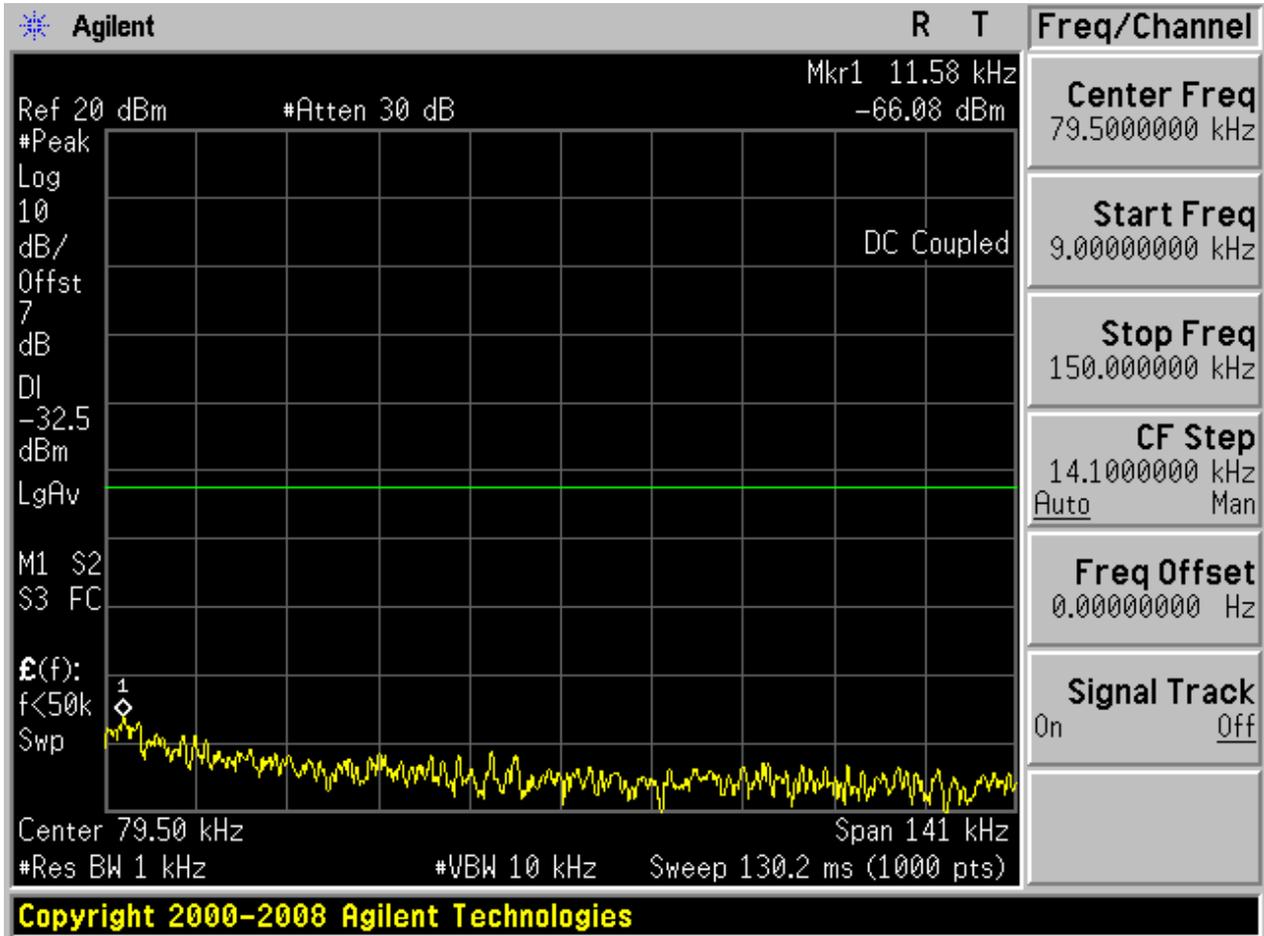
### 2.1 TM1\_DH5\_Ch0

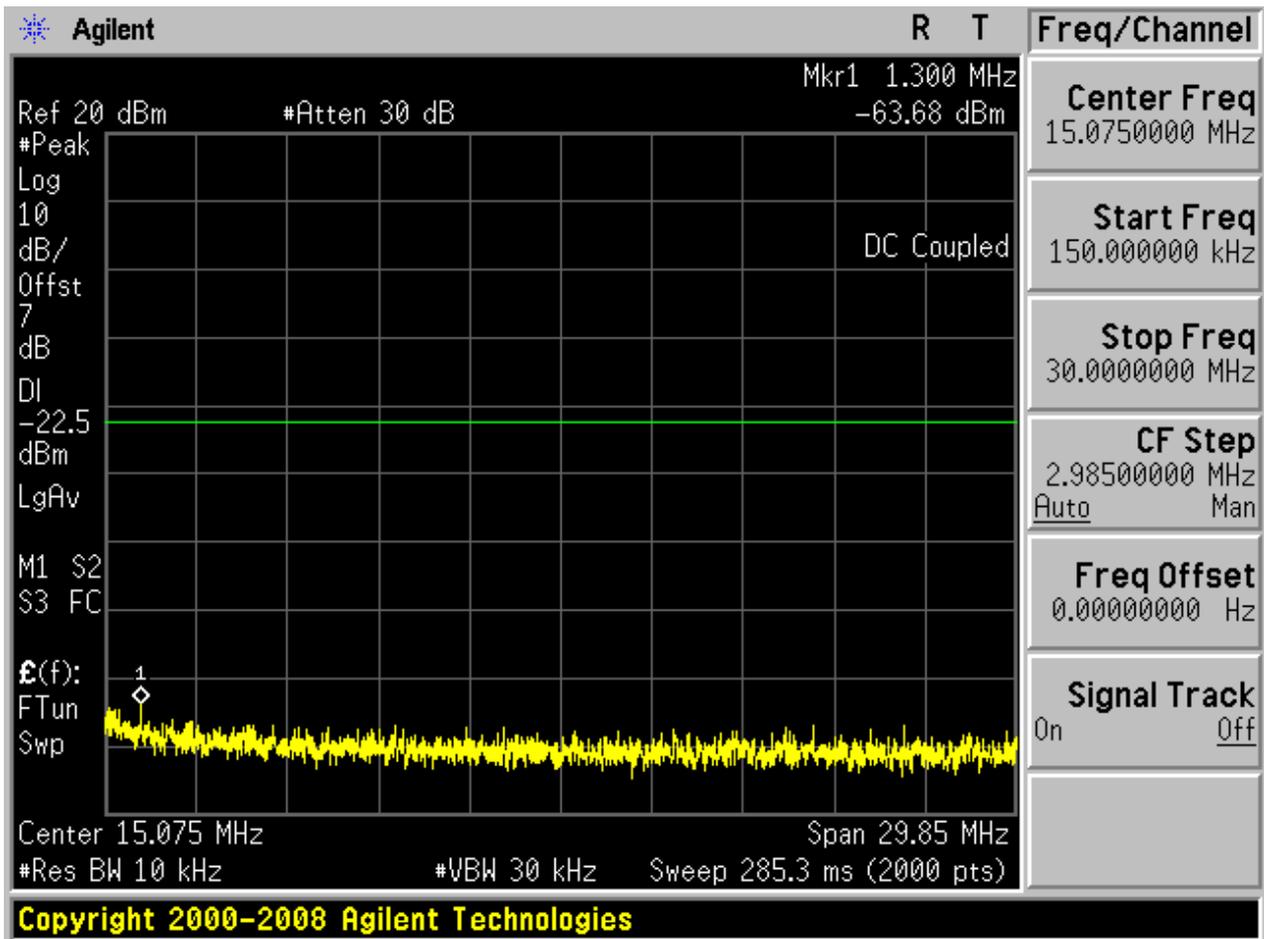
#### 2.1.1 Pref

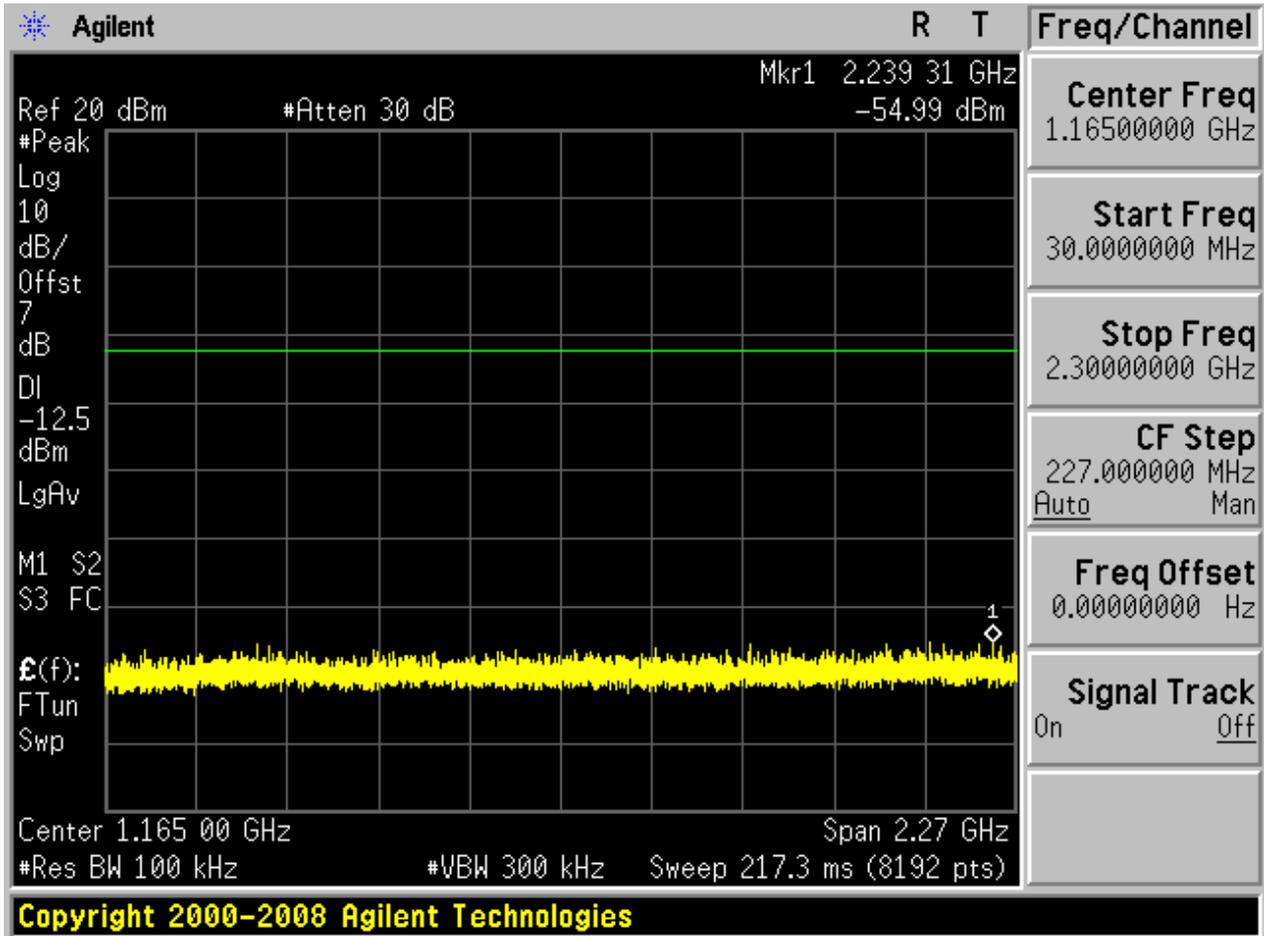


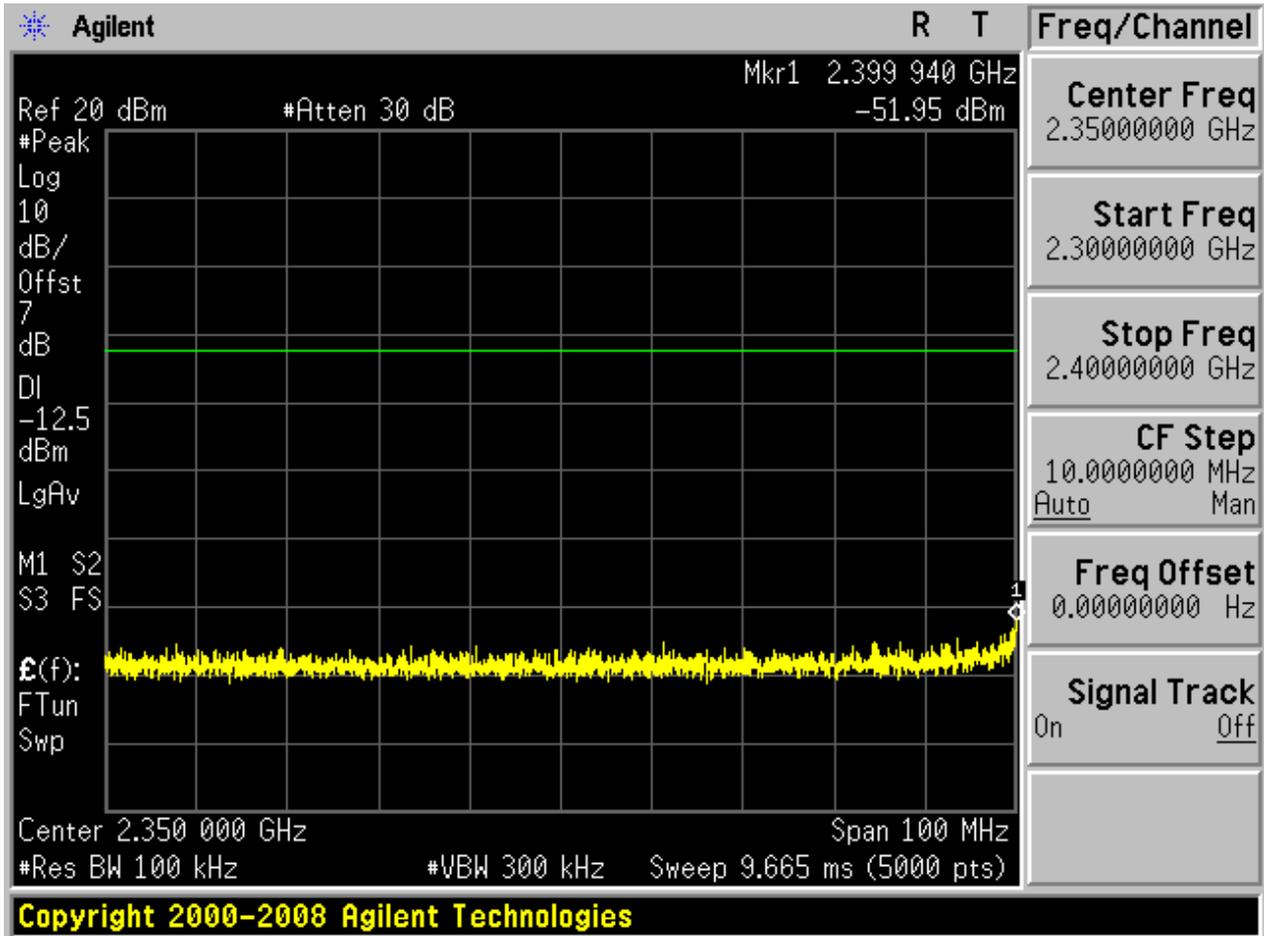


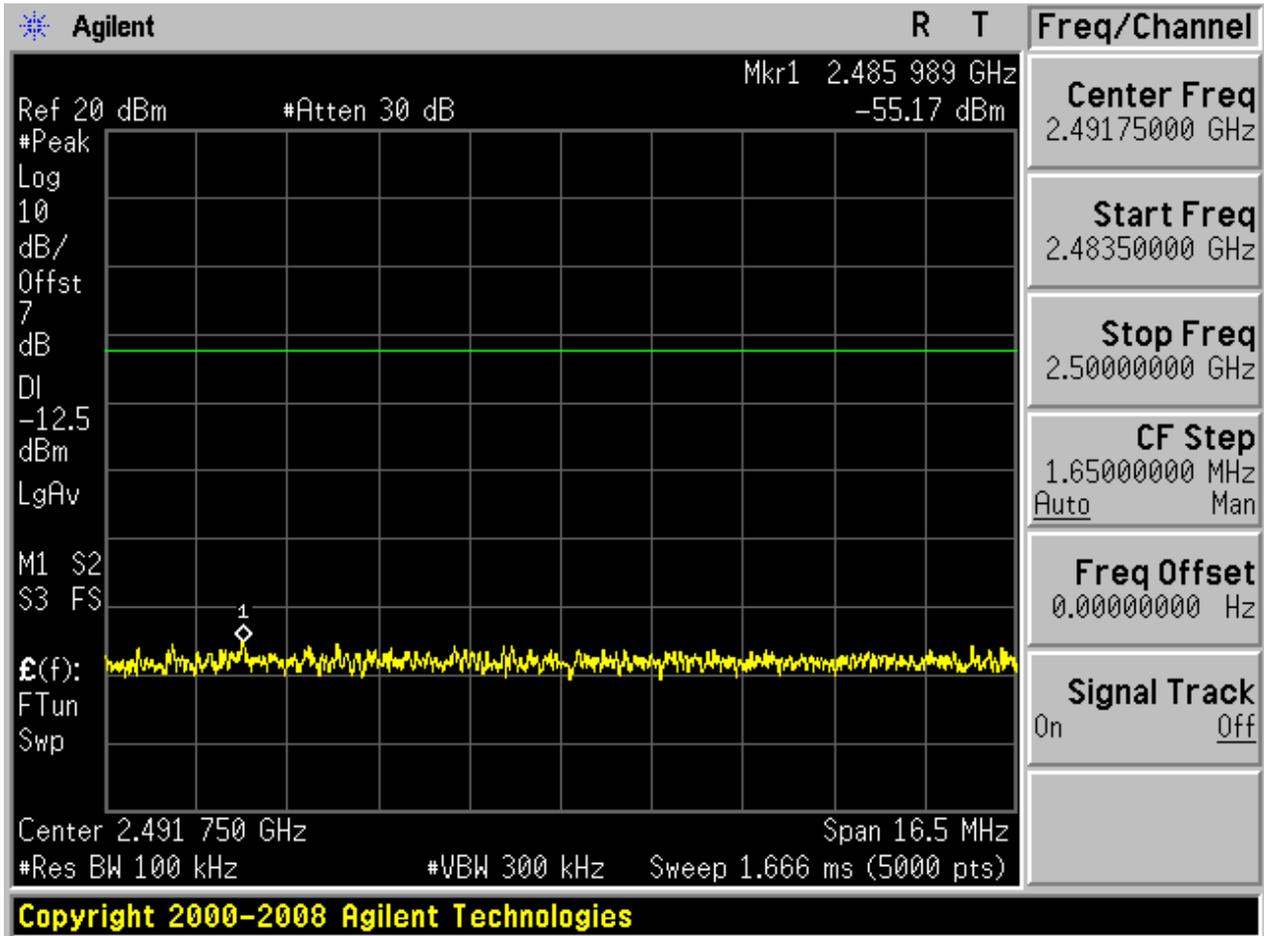
2.1.2 Puw

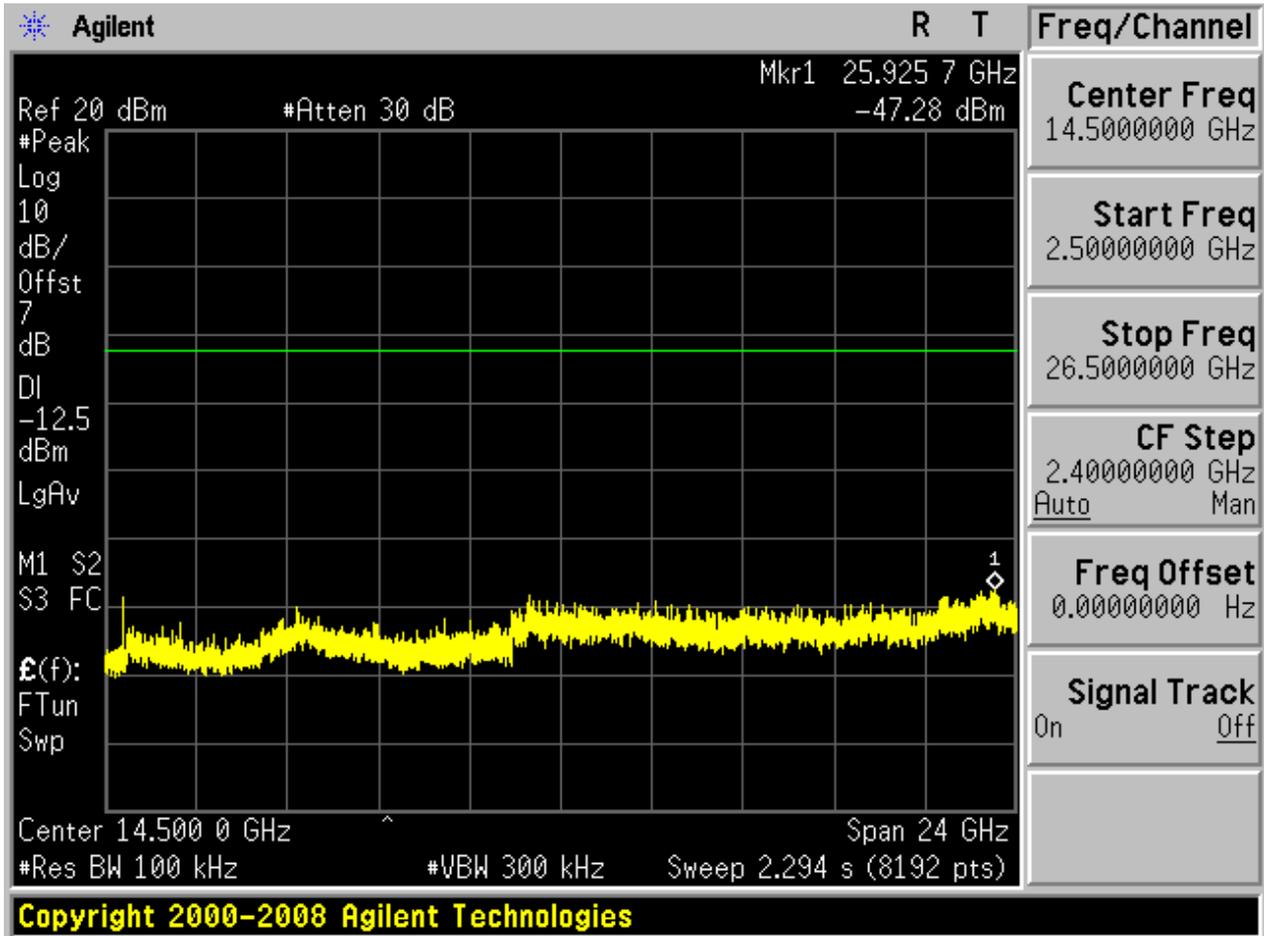






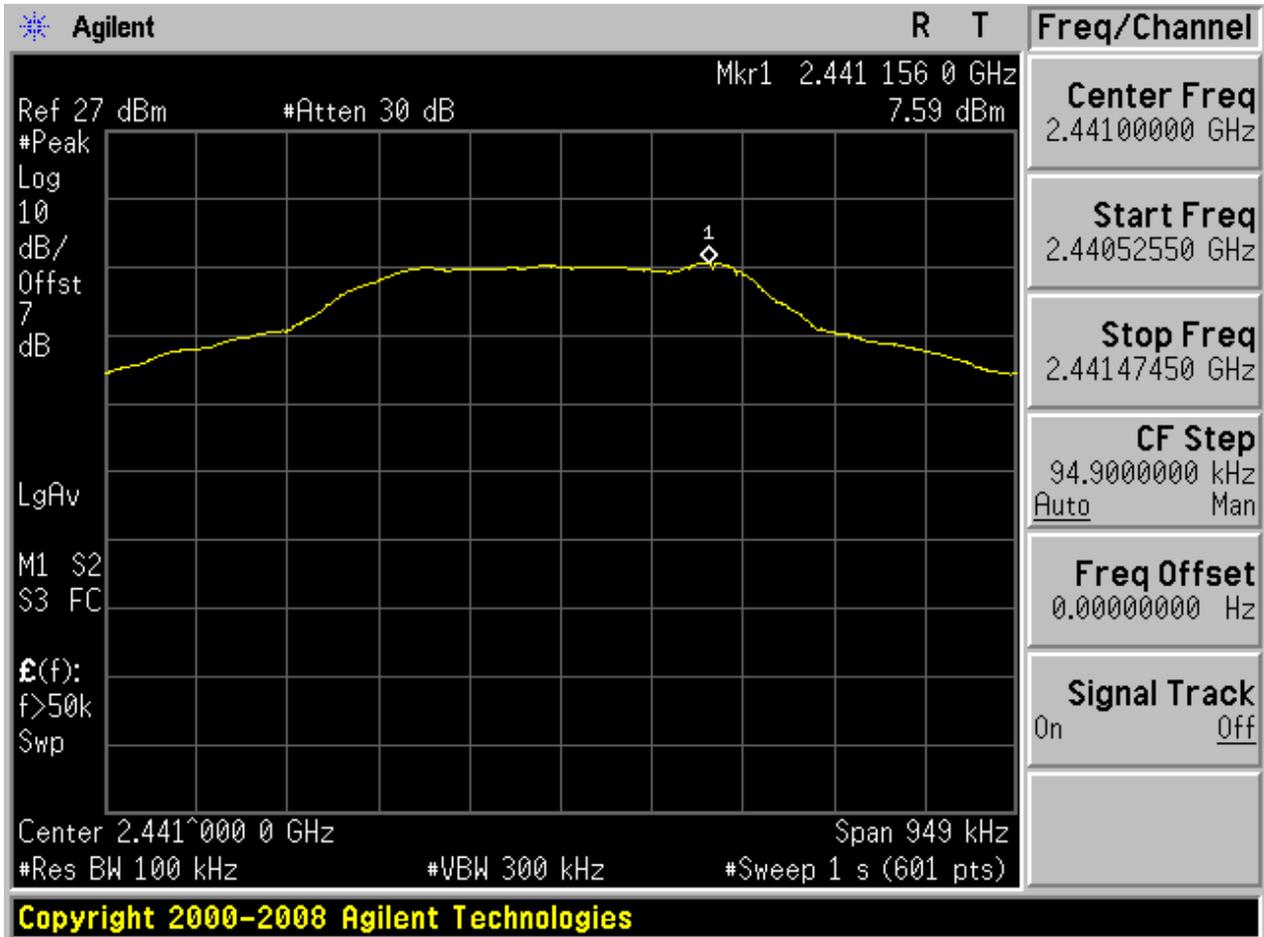




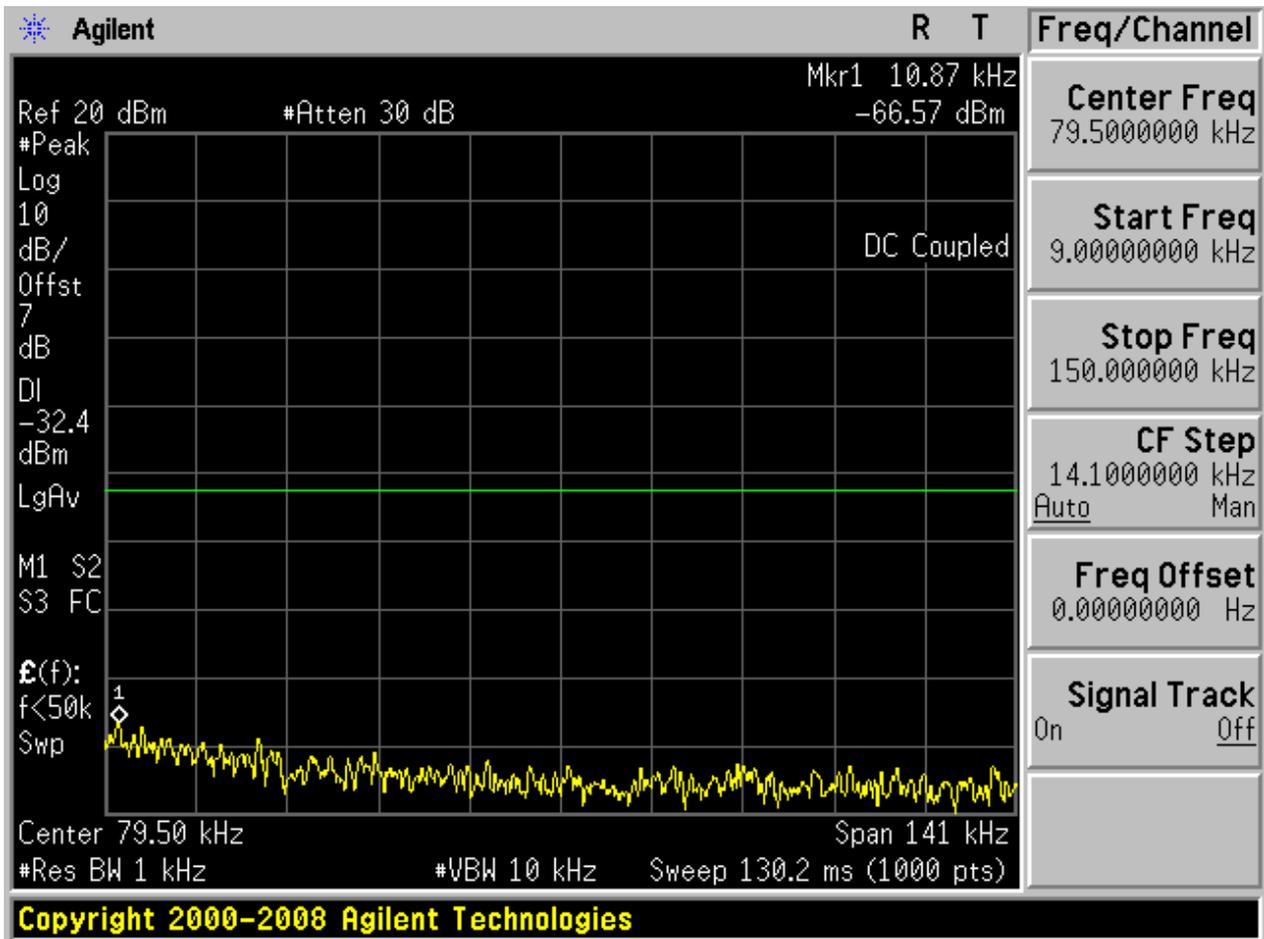


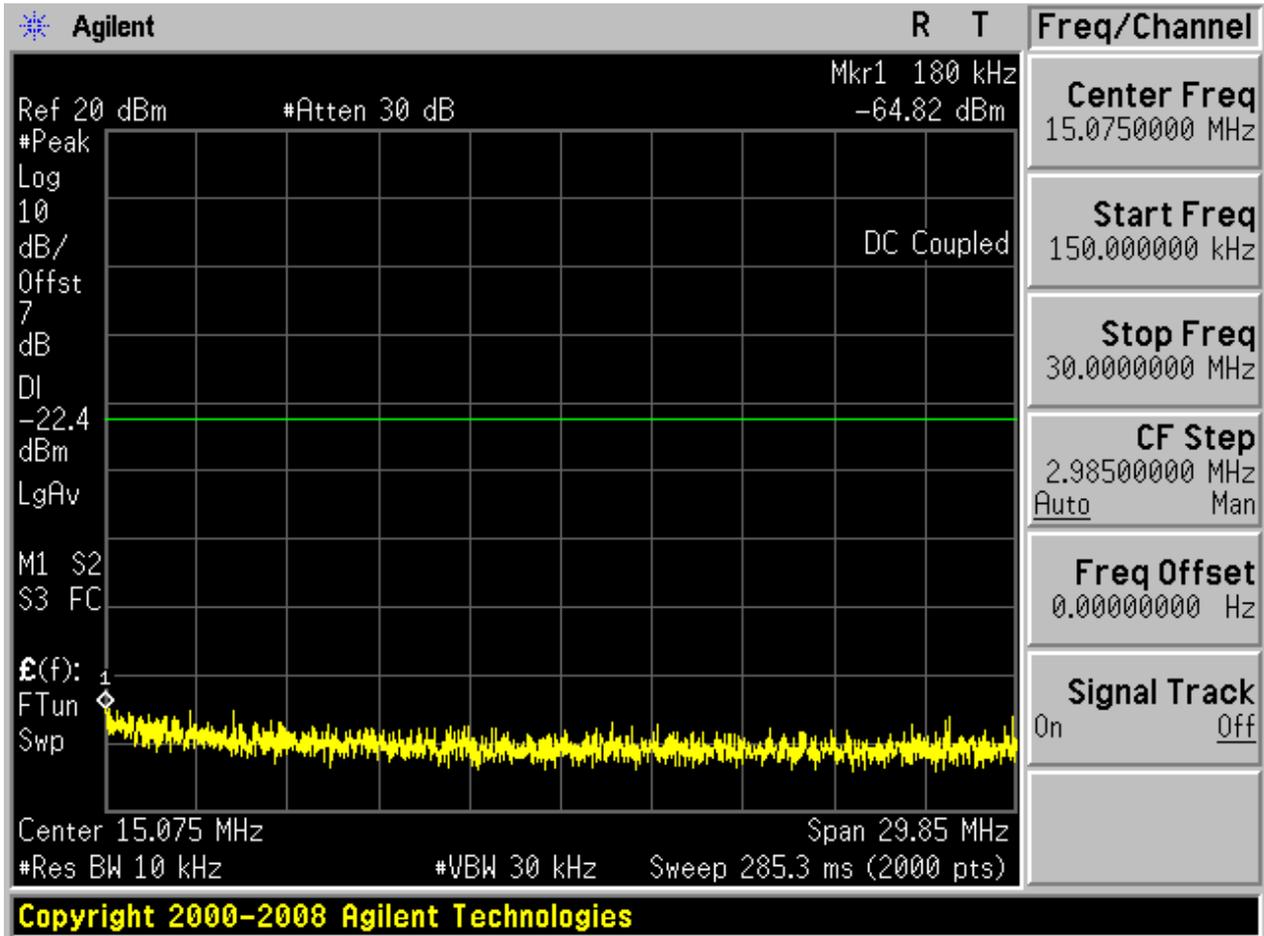
## 2.2 TM1\_DH5\_Ch39

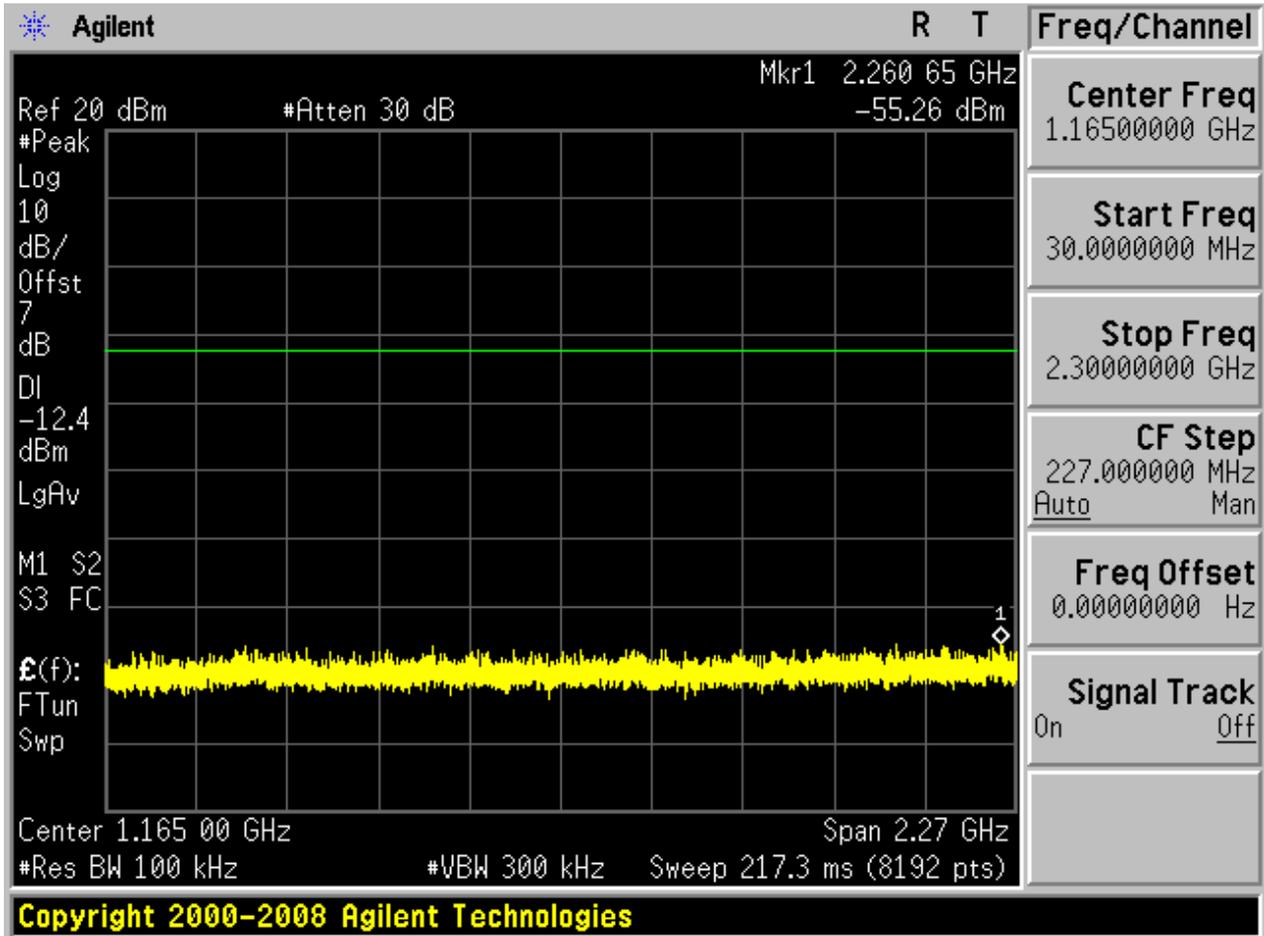
### 2.2.1 Pref

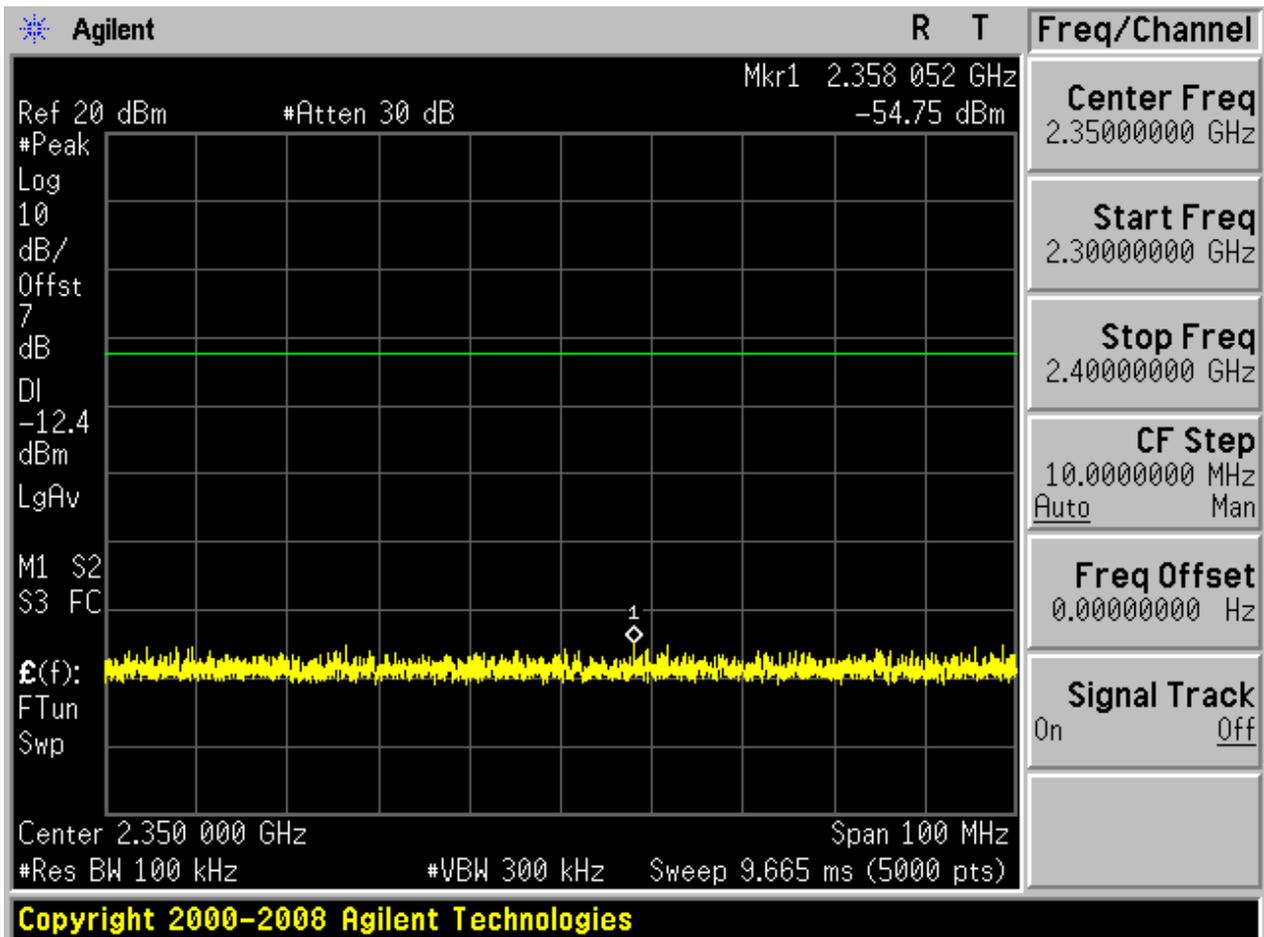


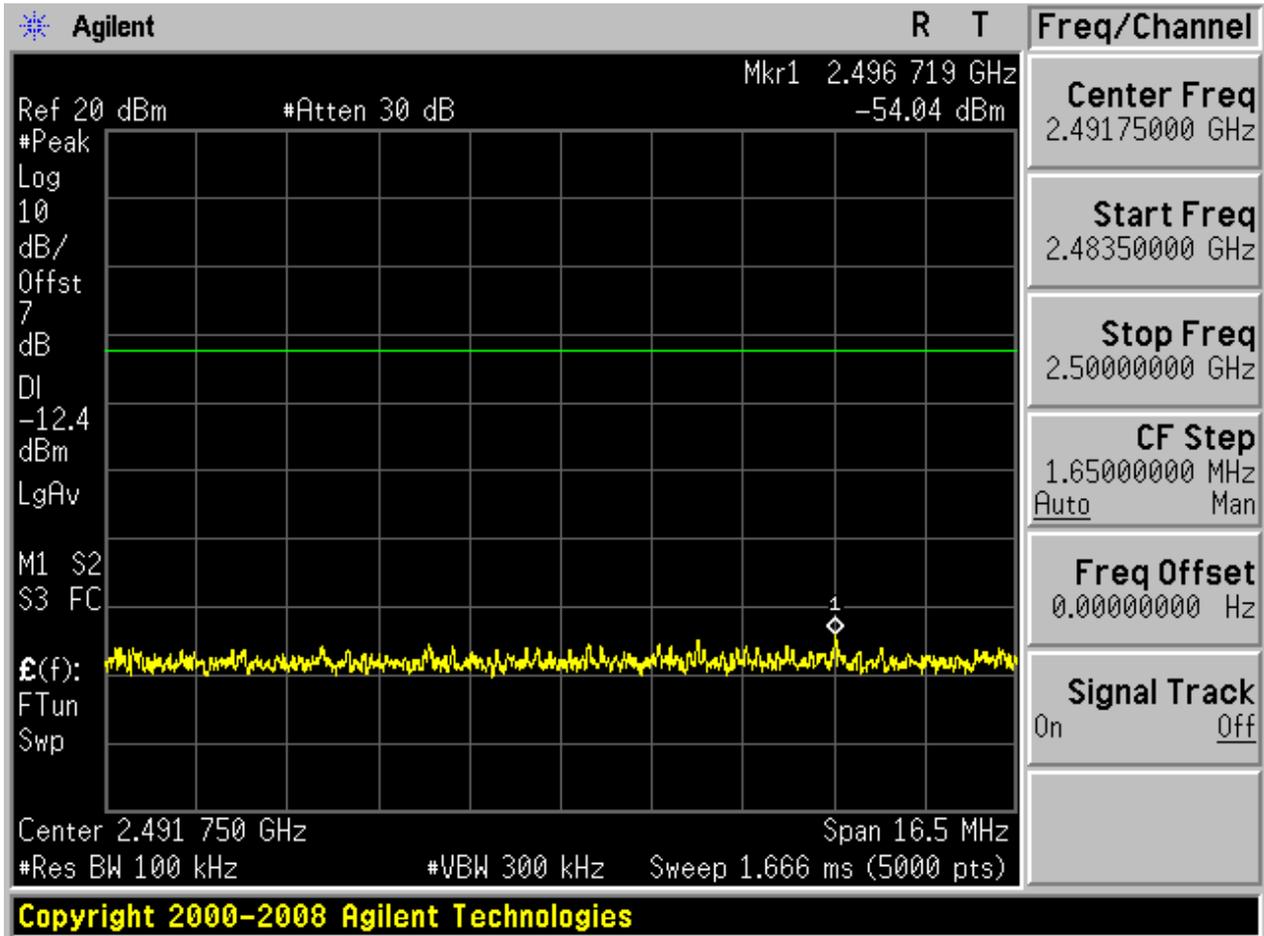
2.2.2 Puw

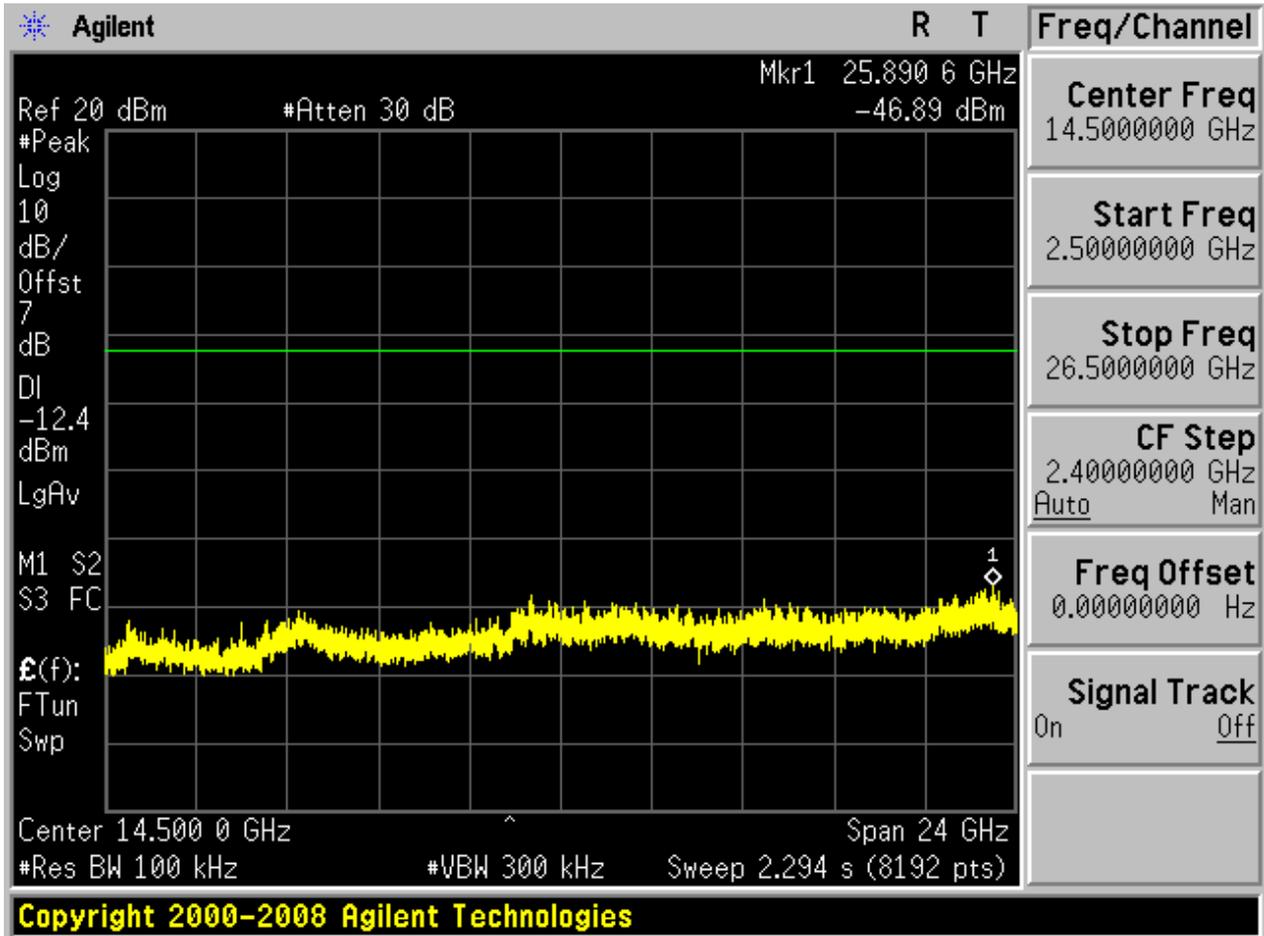








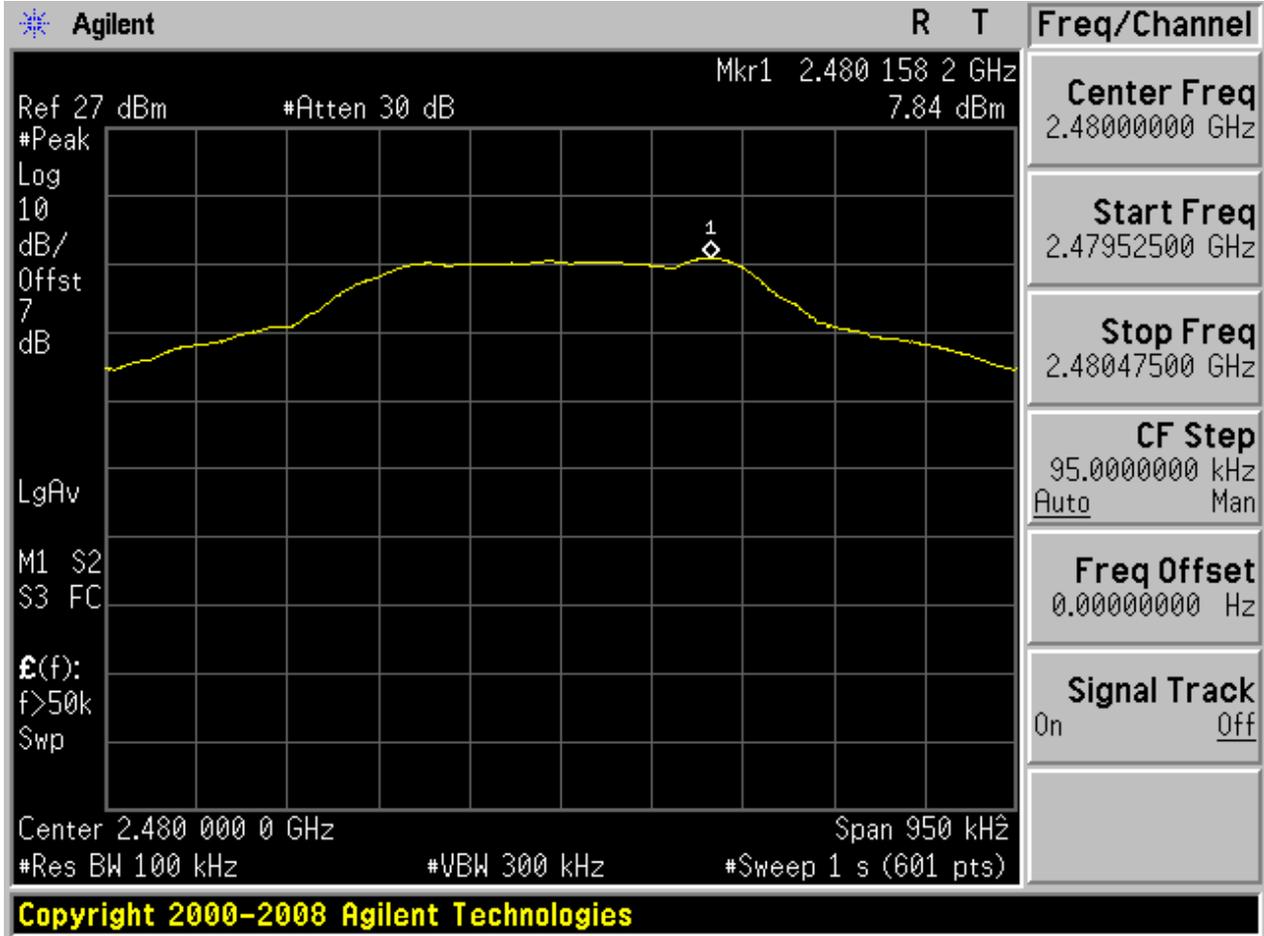






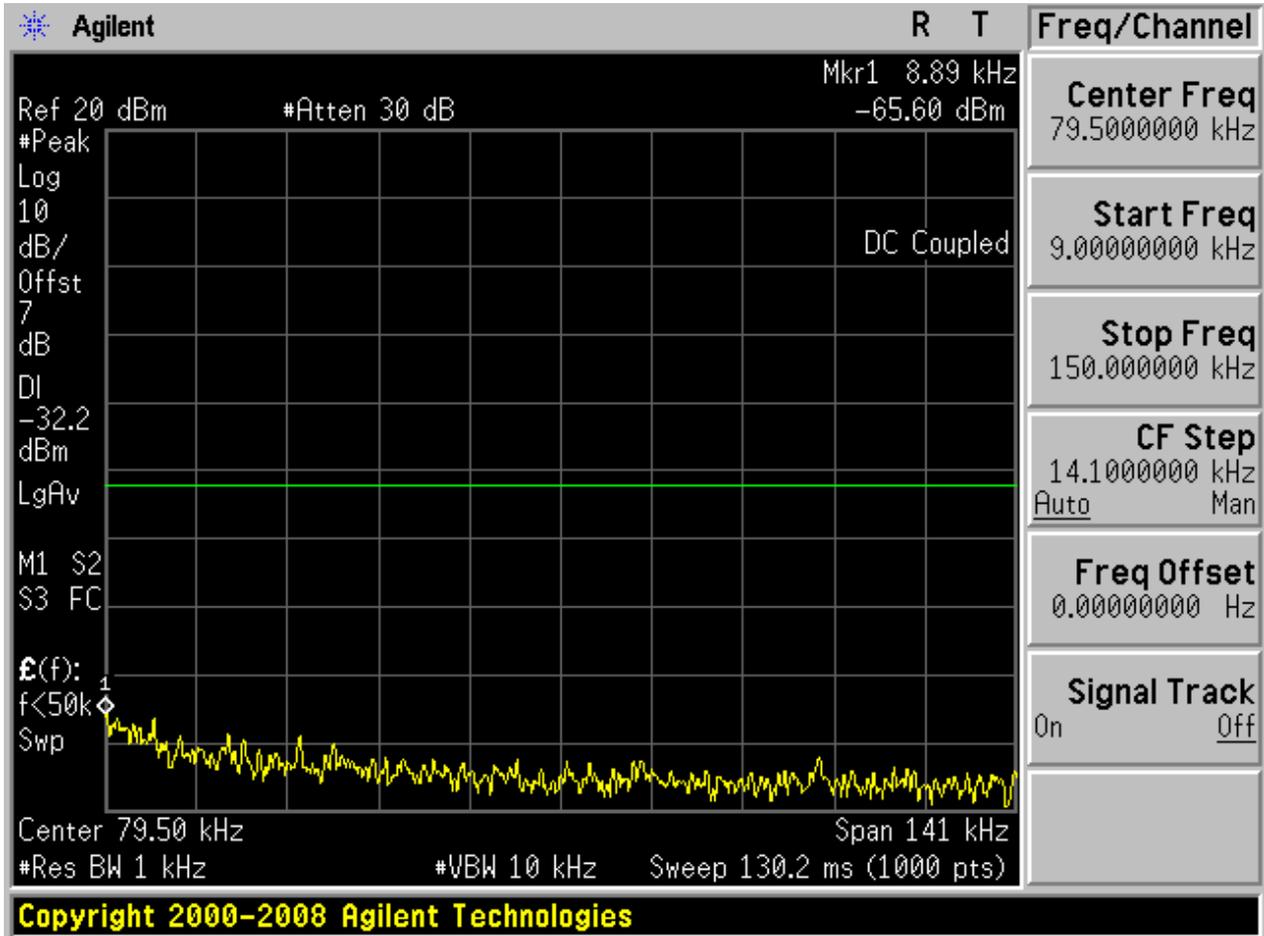
### 2.3 TM1\_DH5\_Ch78

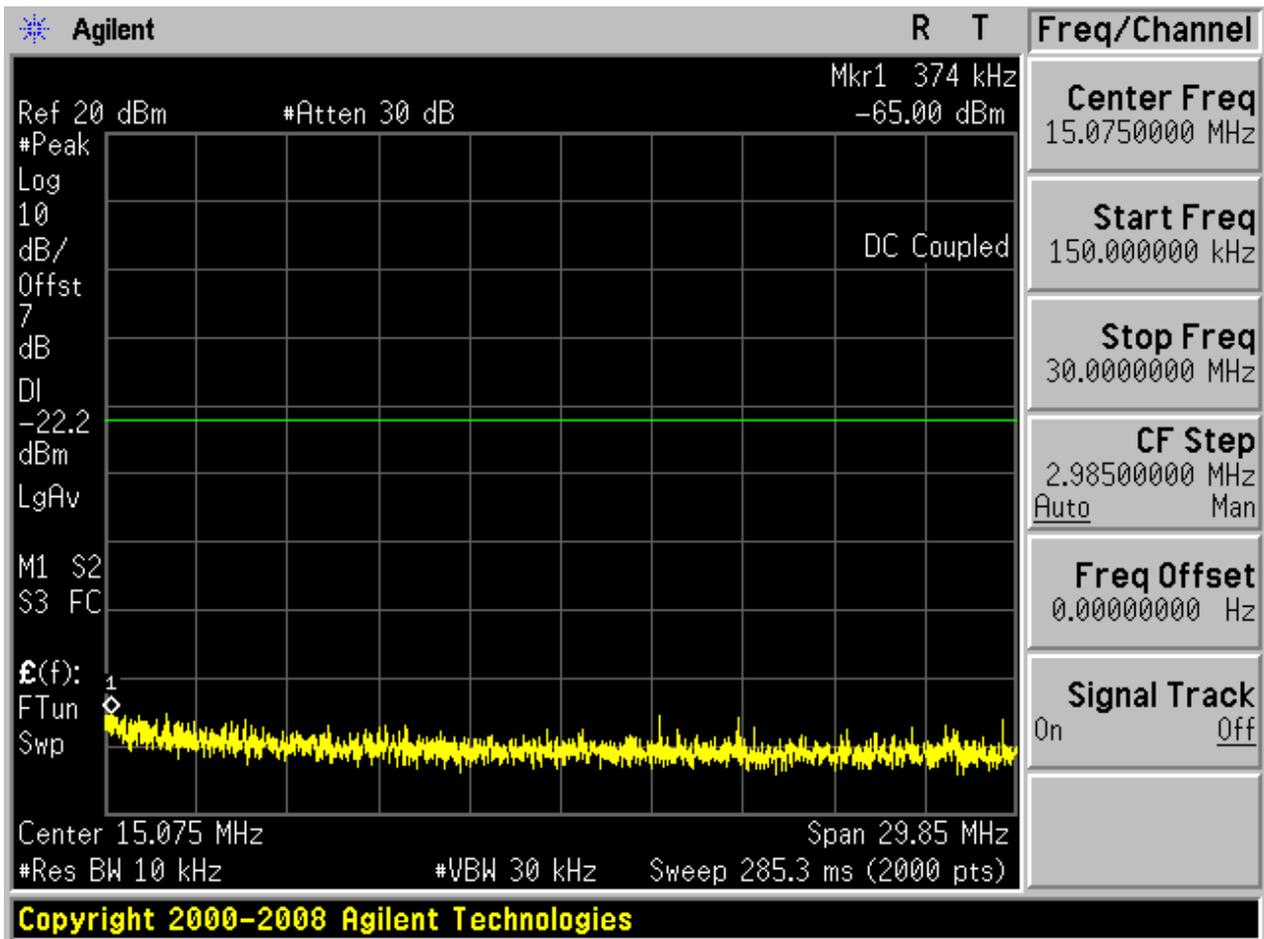
#### 2.3.1 Pref

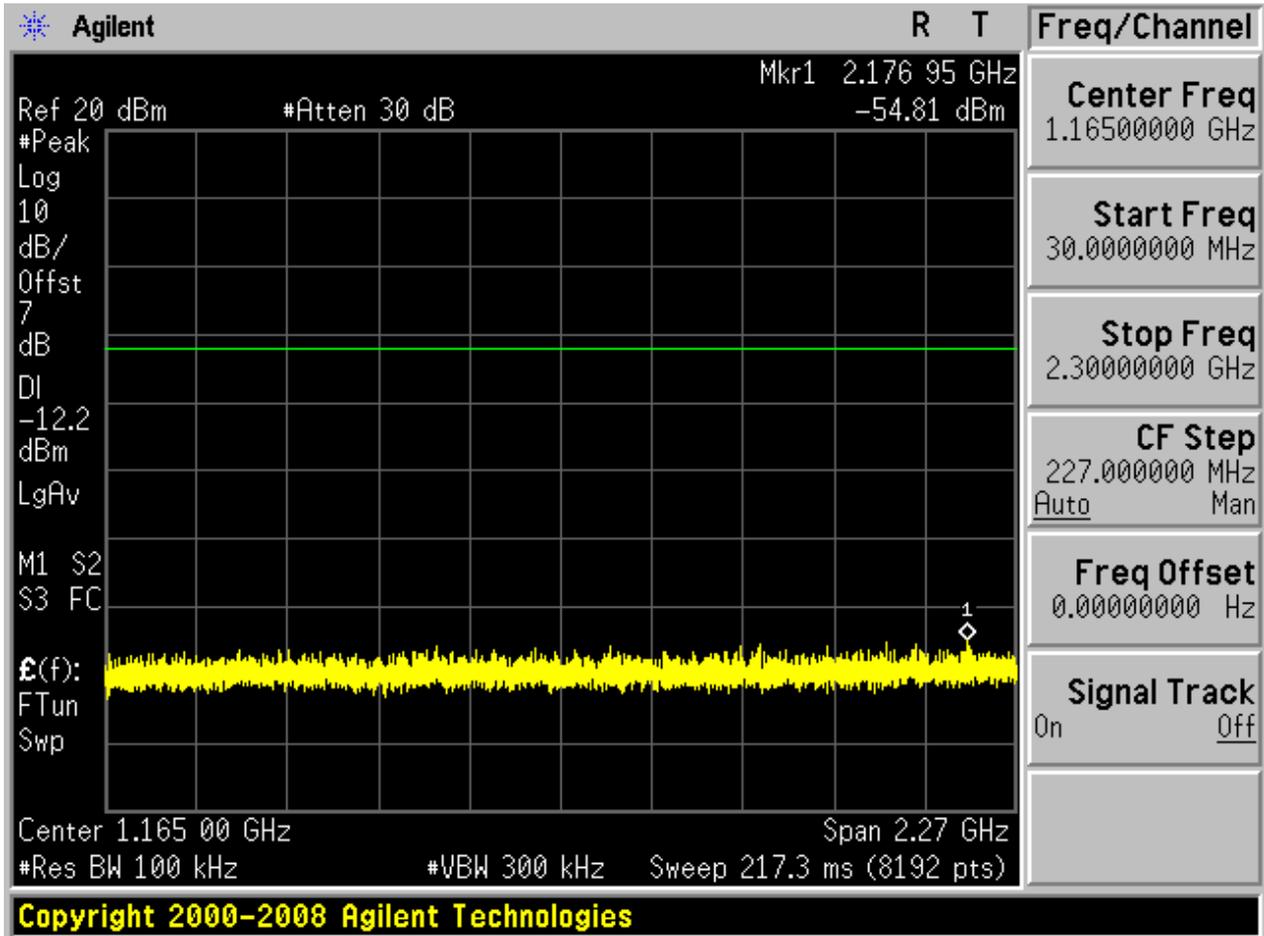


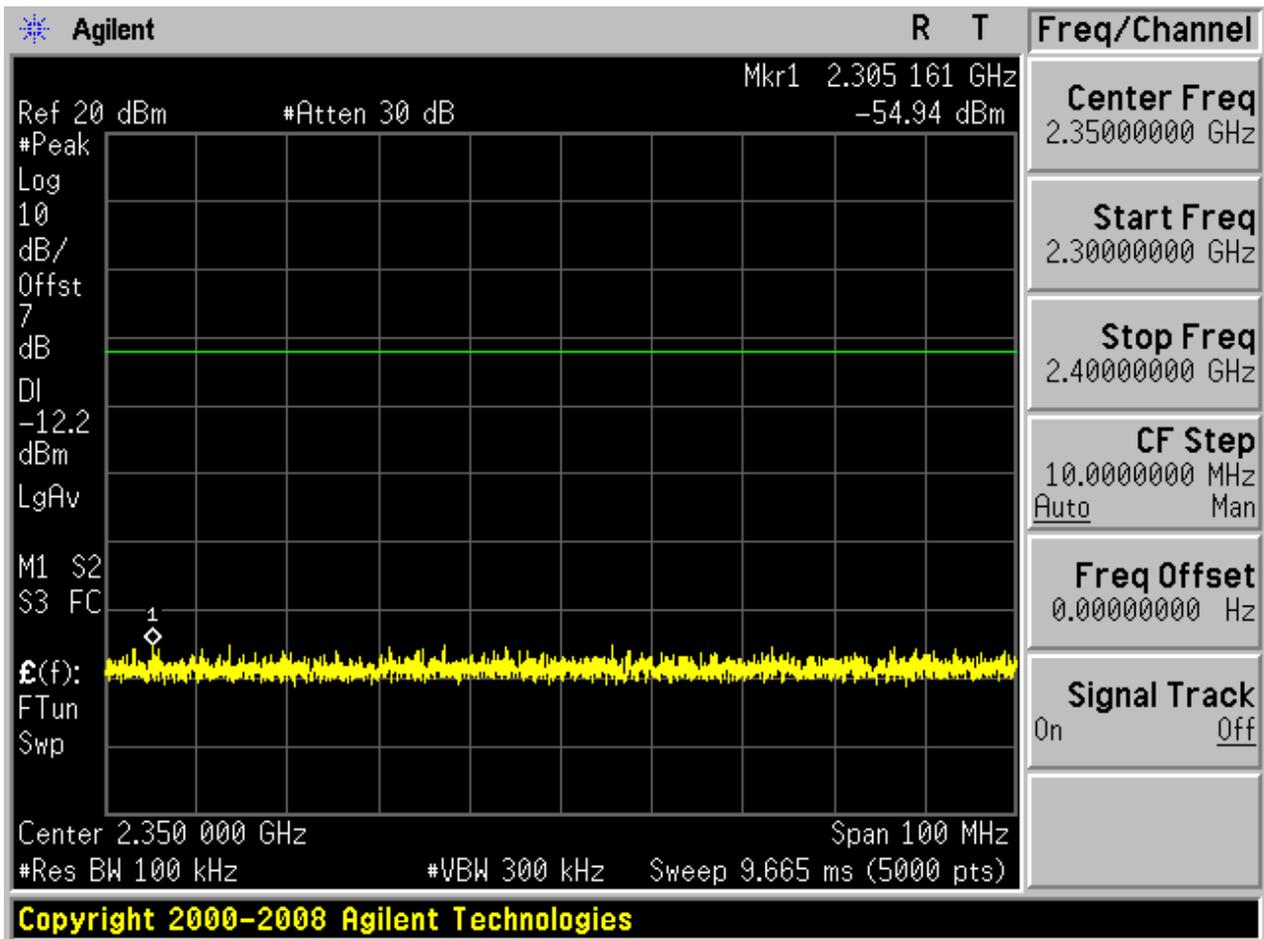


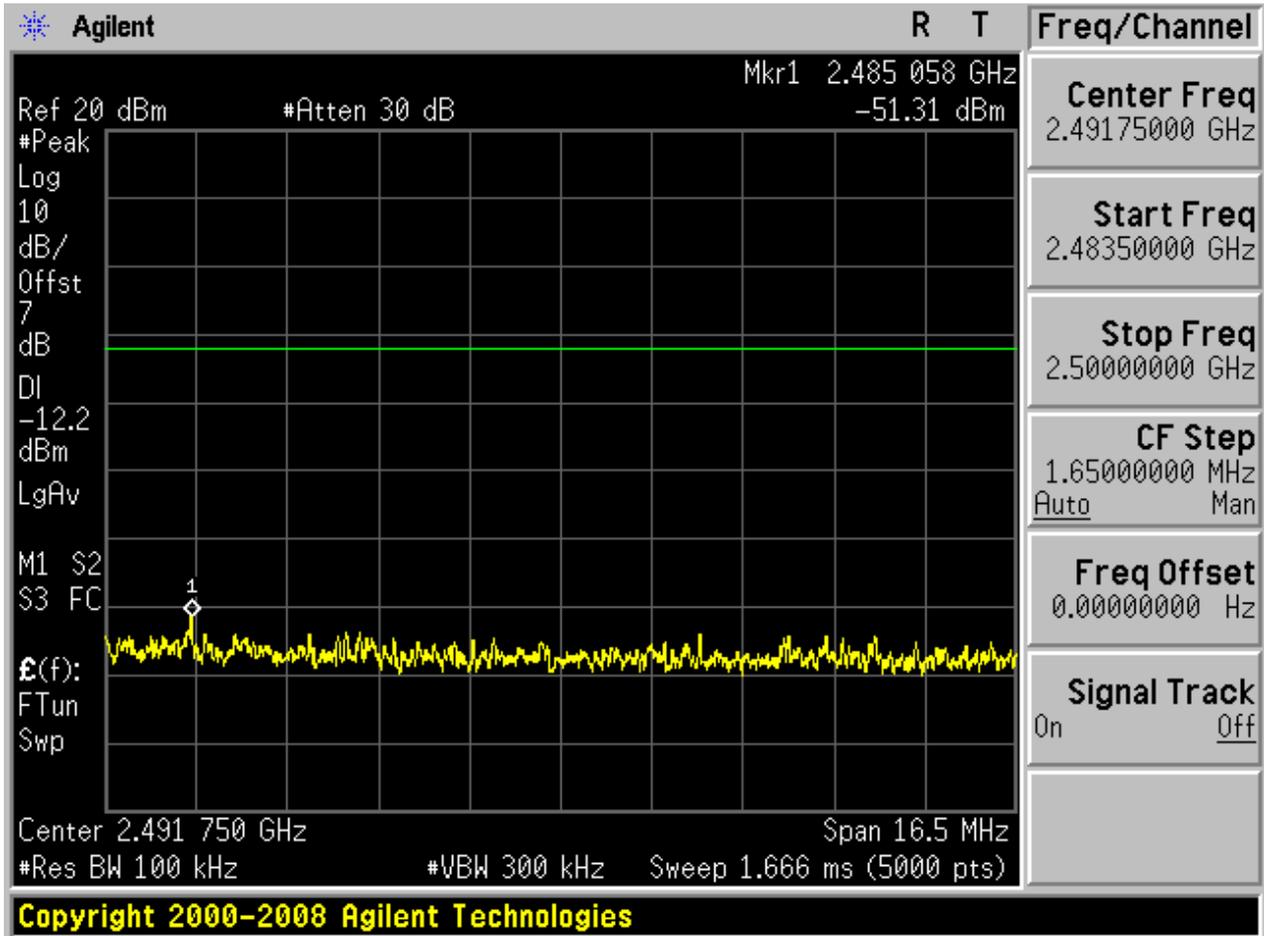
2.3.2 Puw

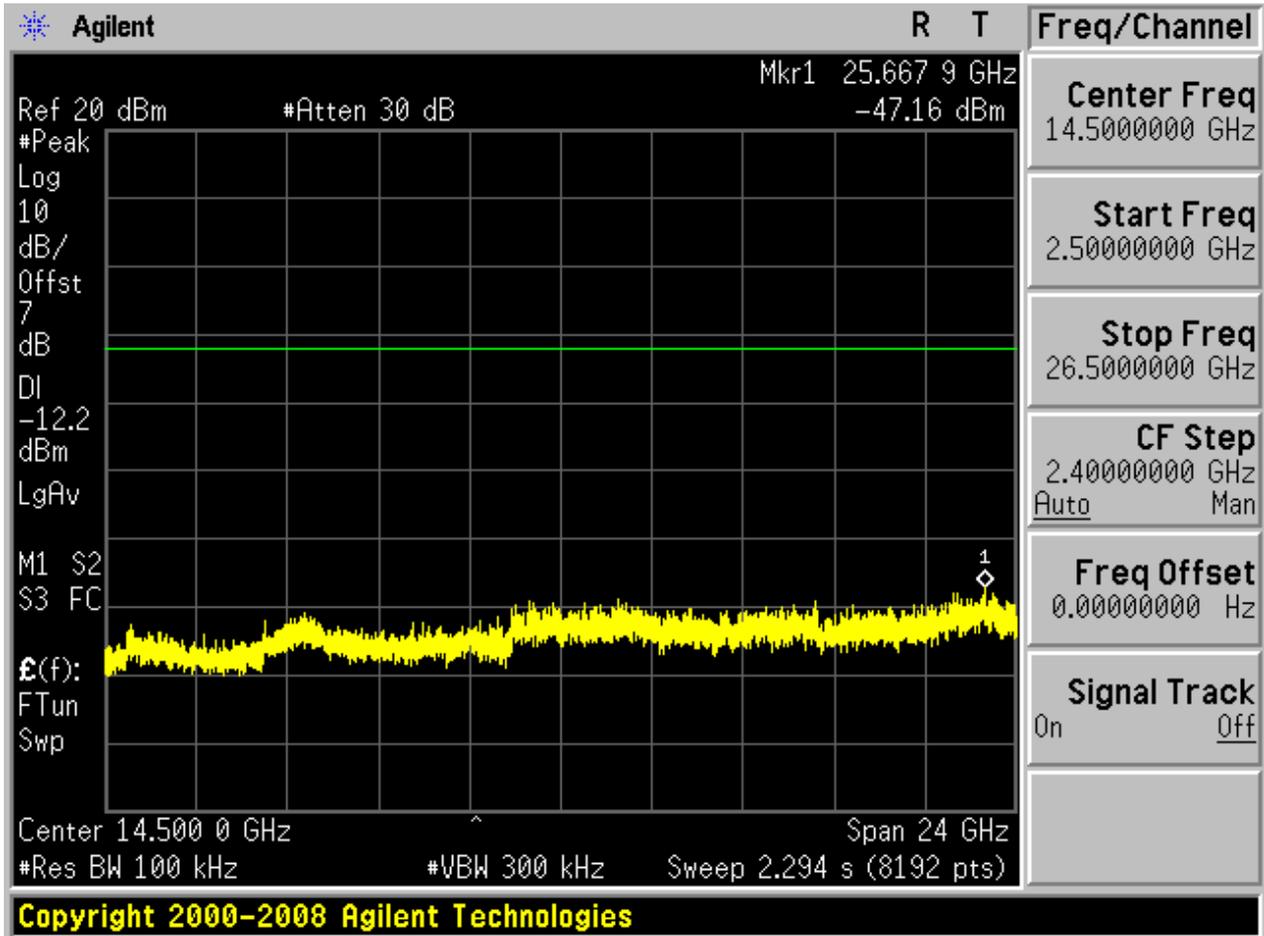








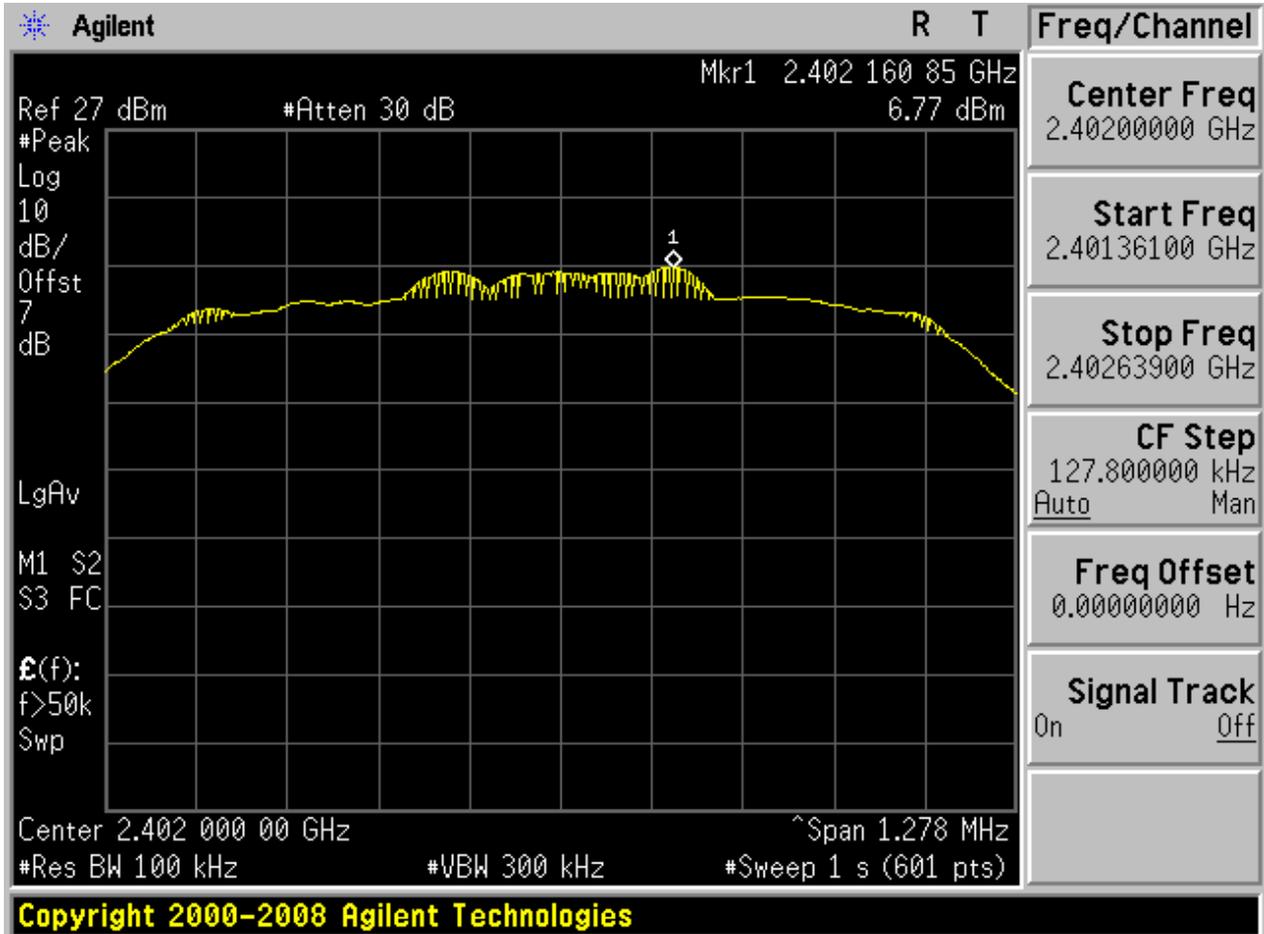






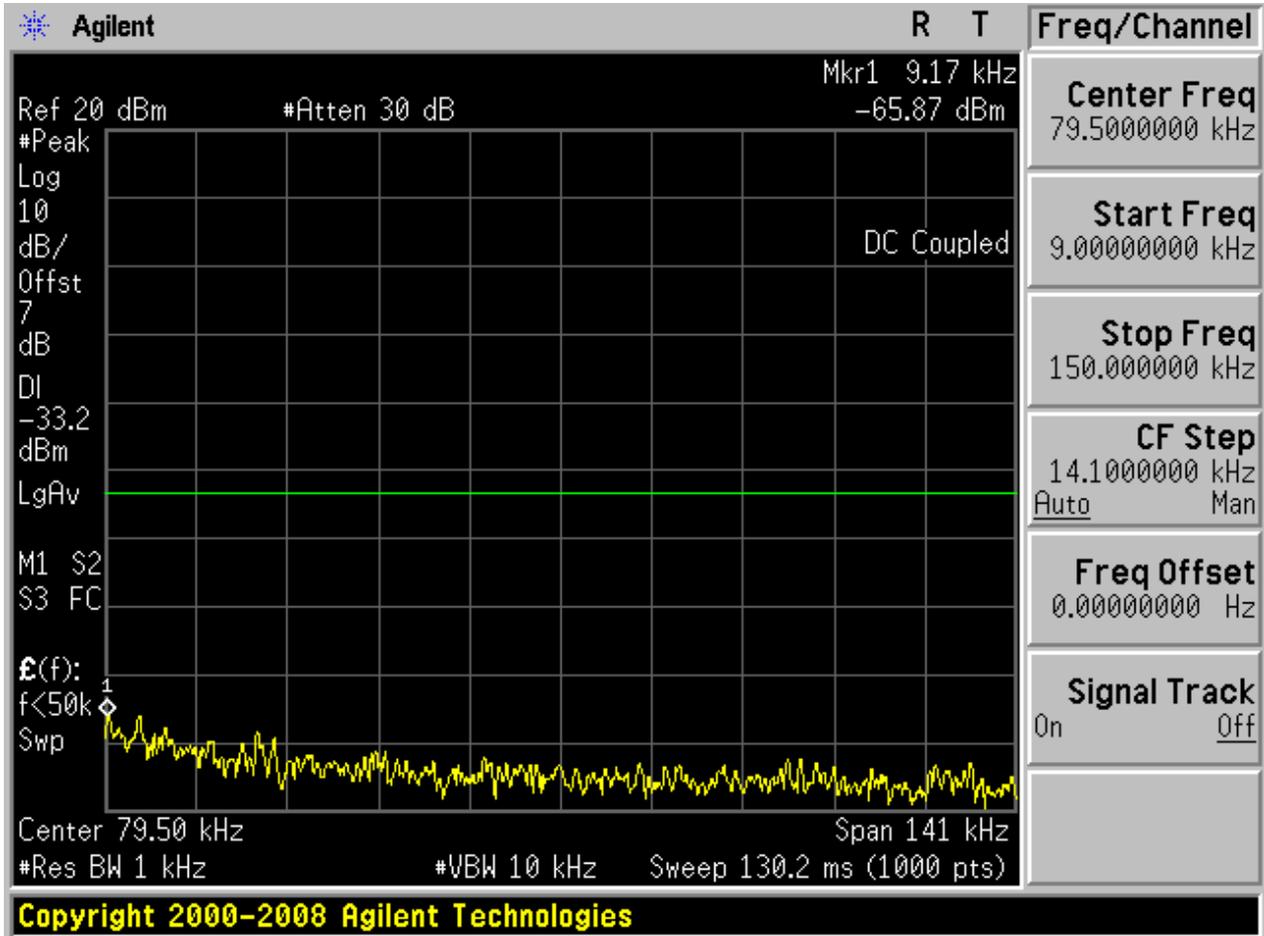
## 2.4 TM2\_2DH5\_Ch0

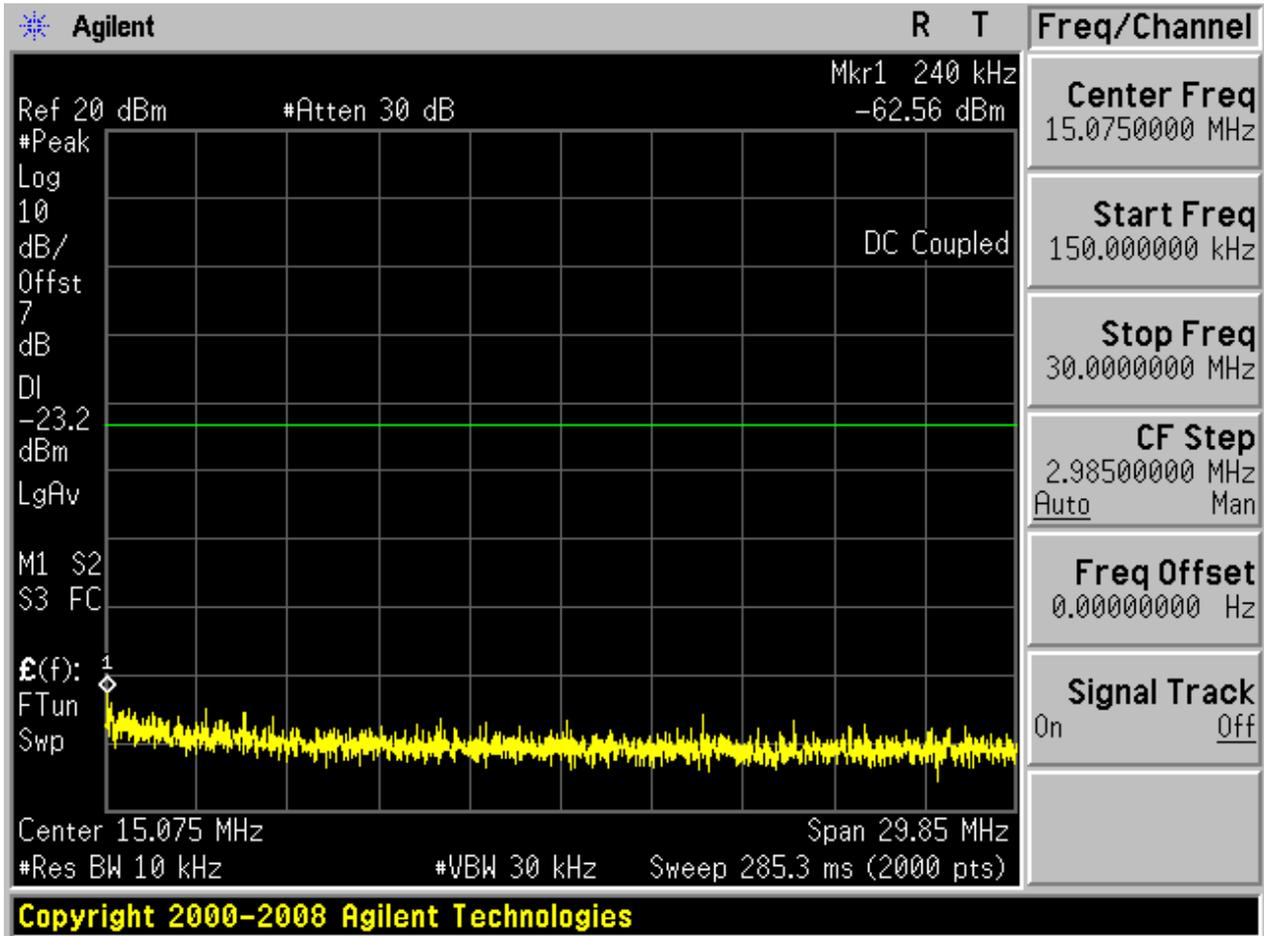
### 2.4.1 Pref

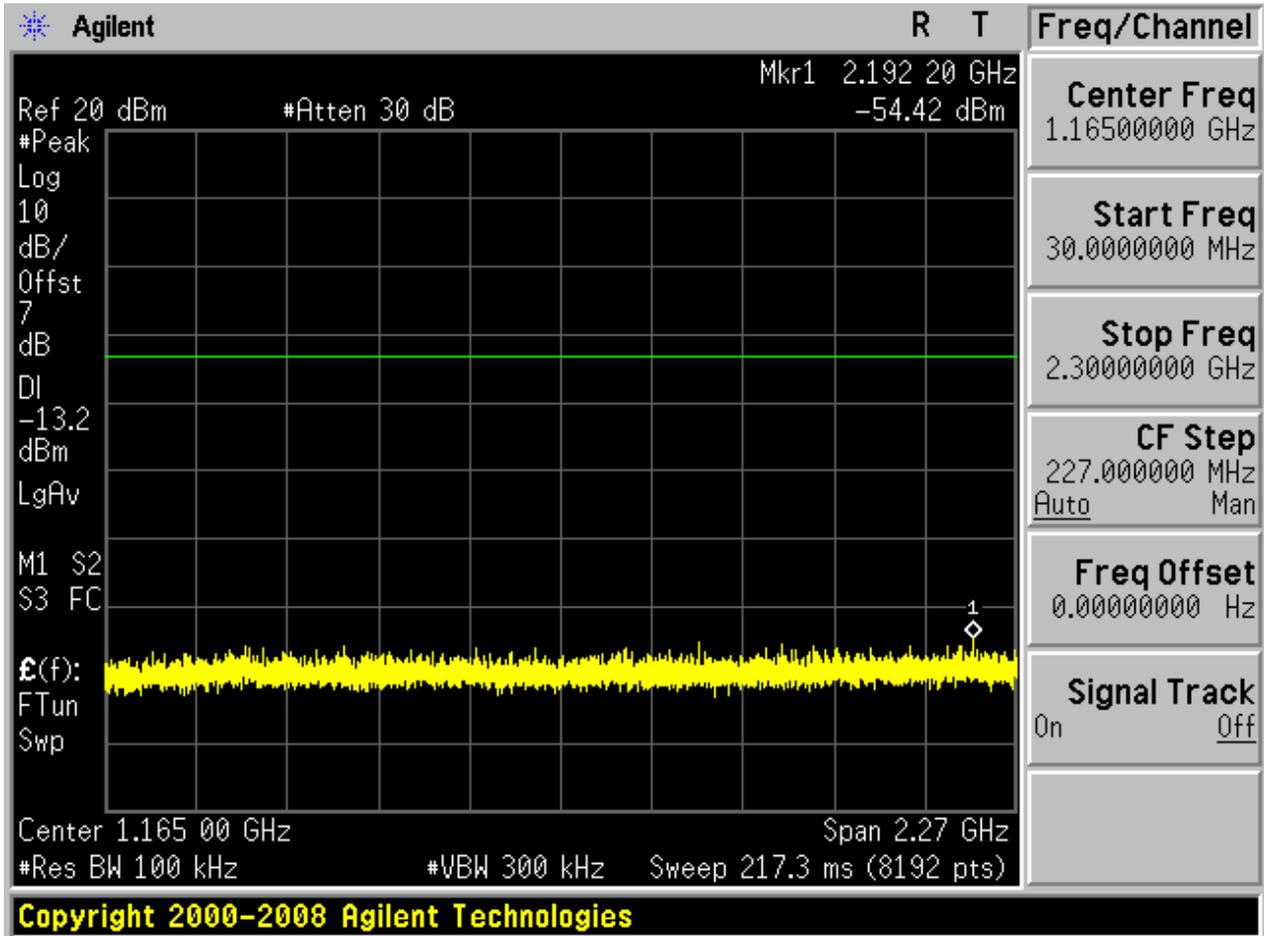


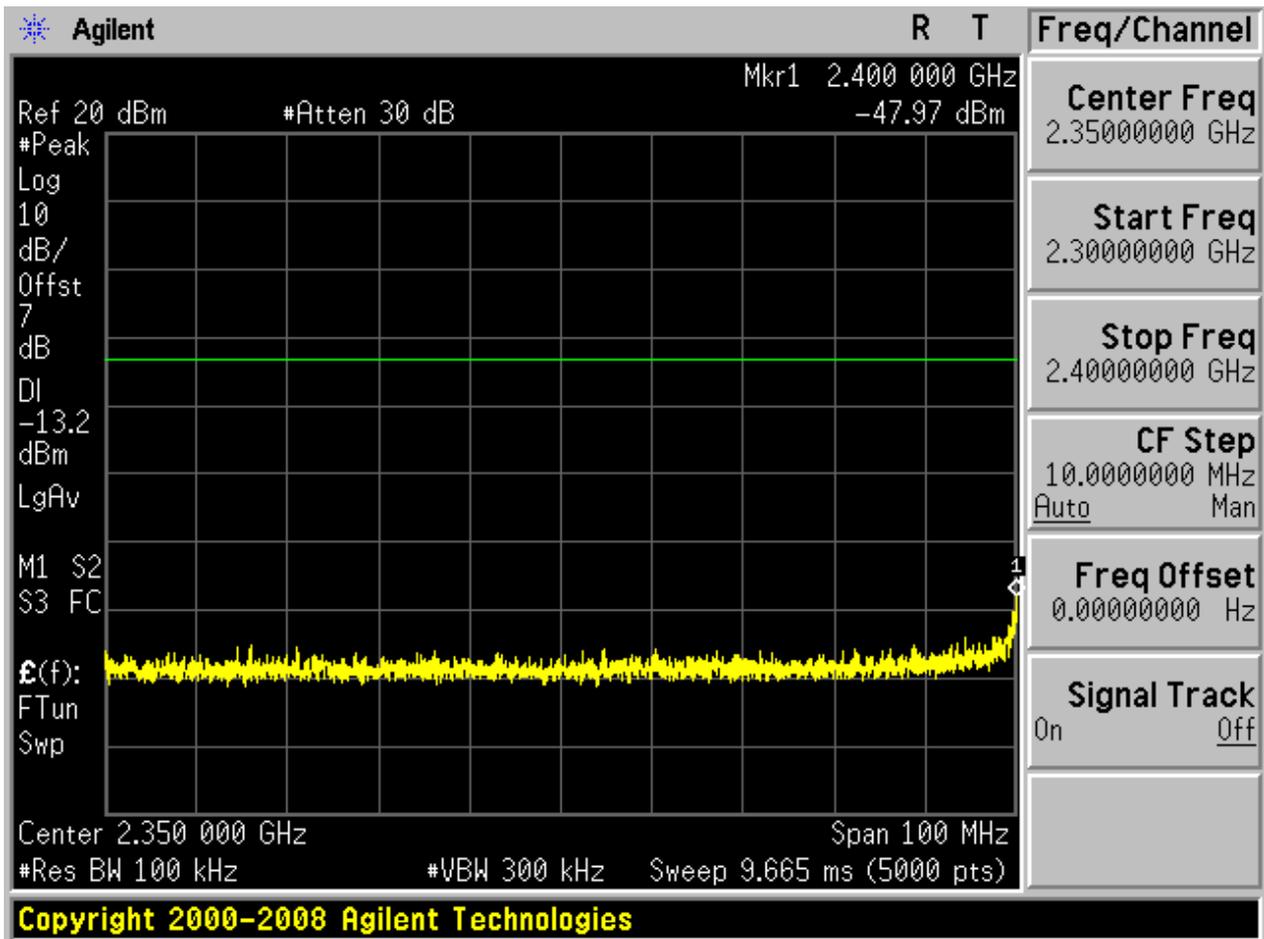


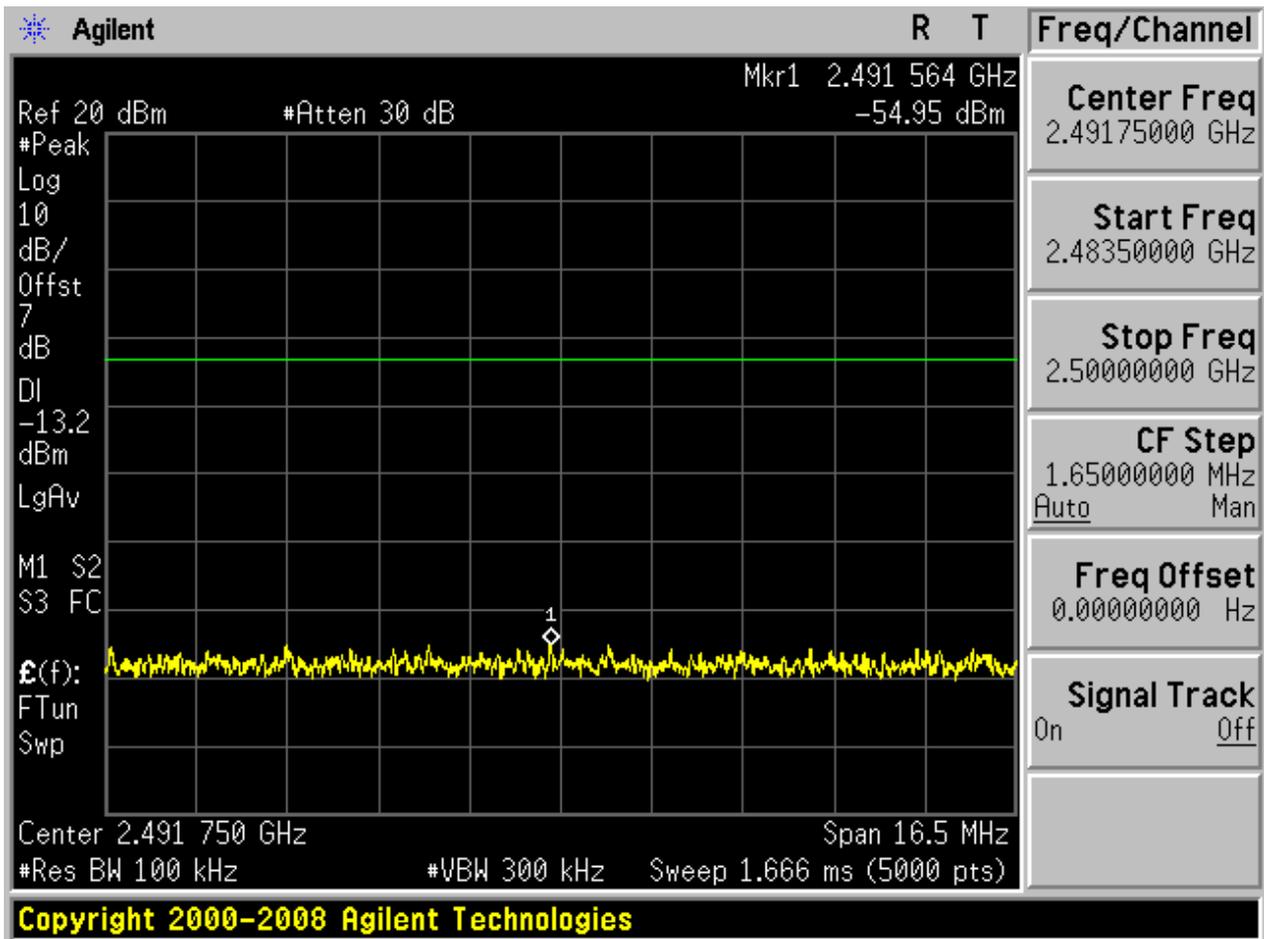
2.4.2 Puw

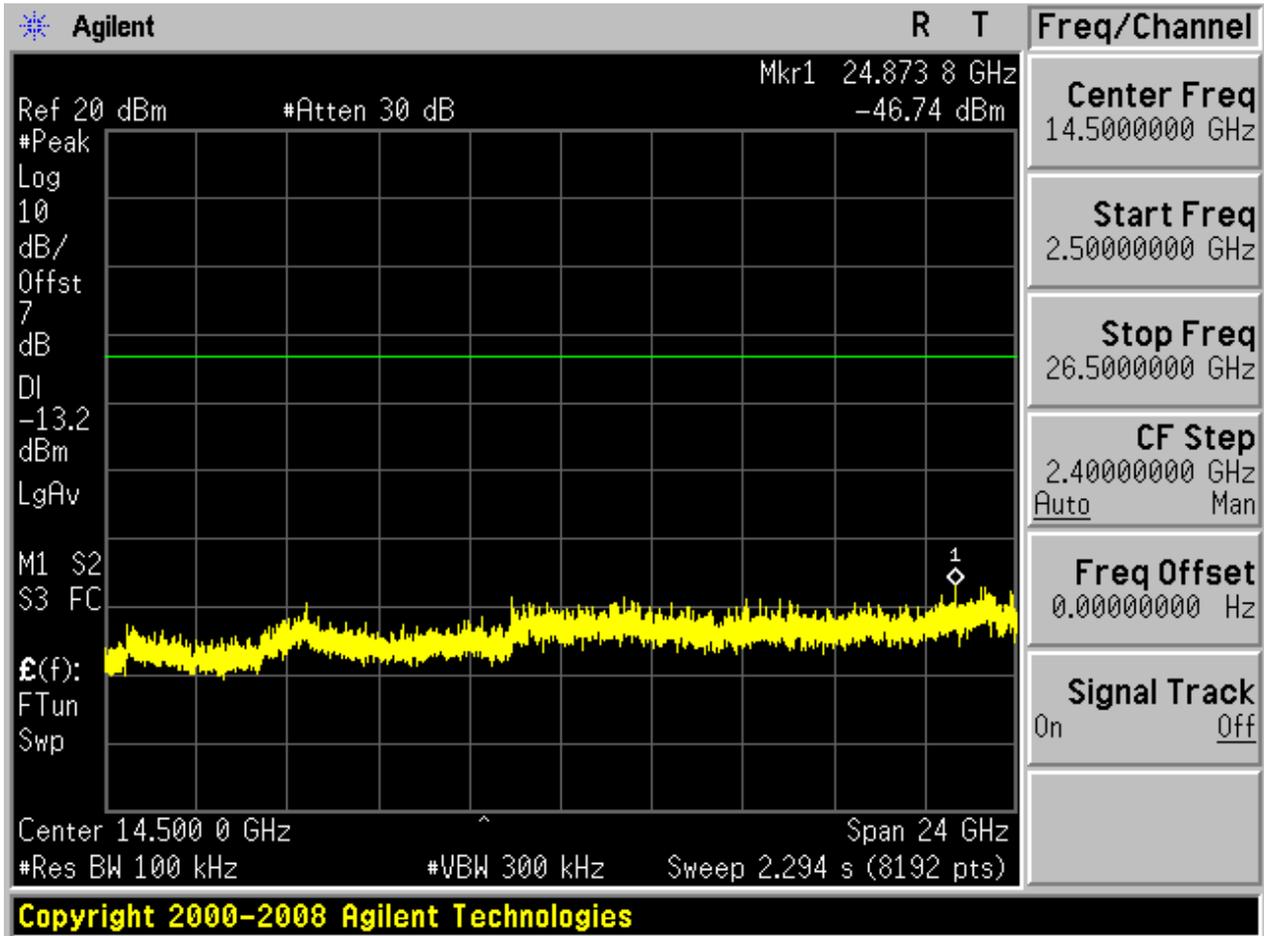








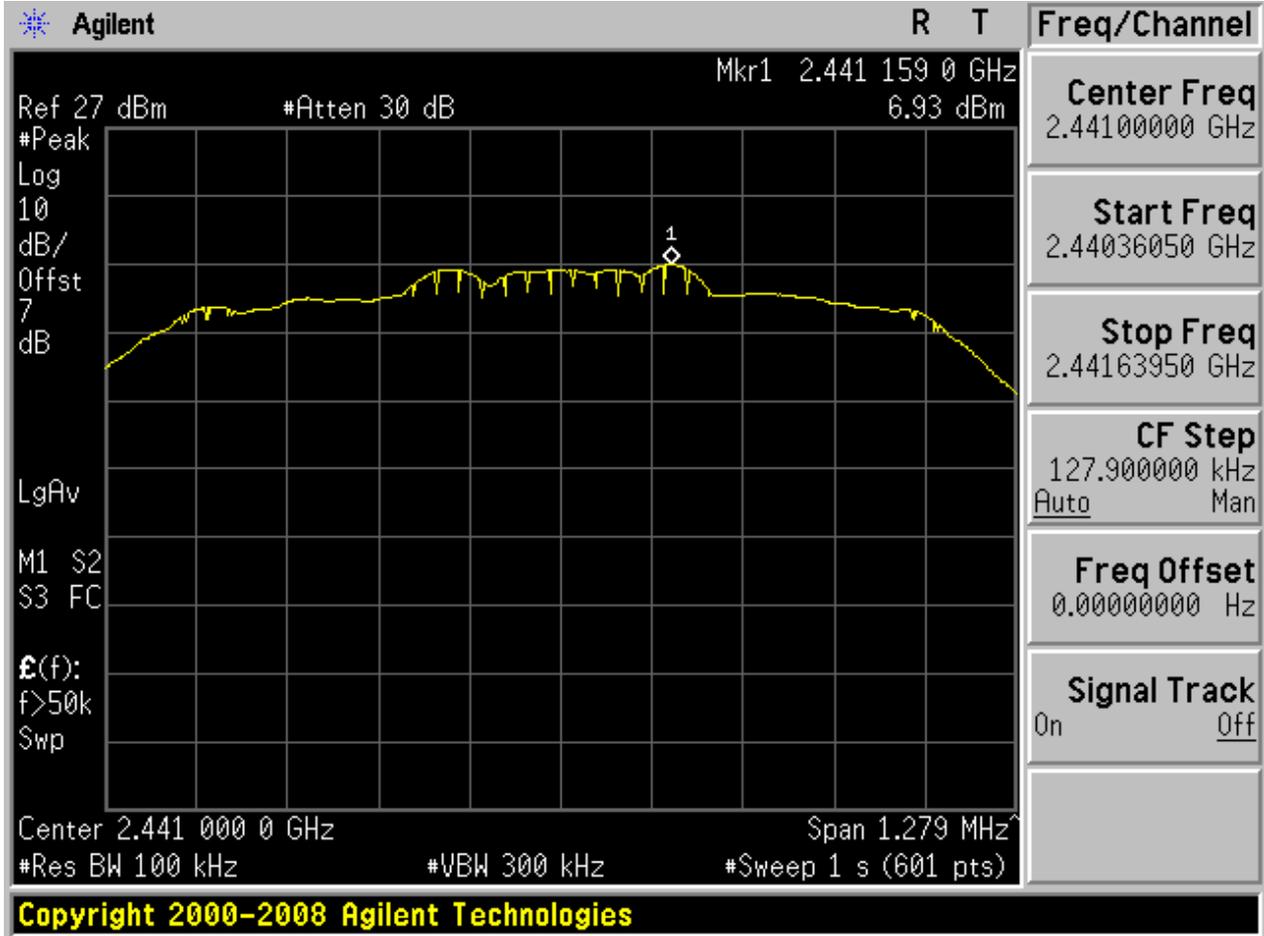






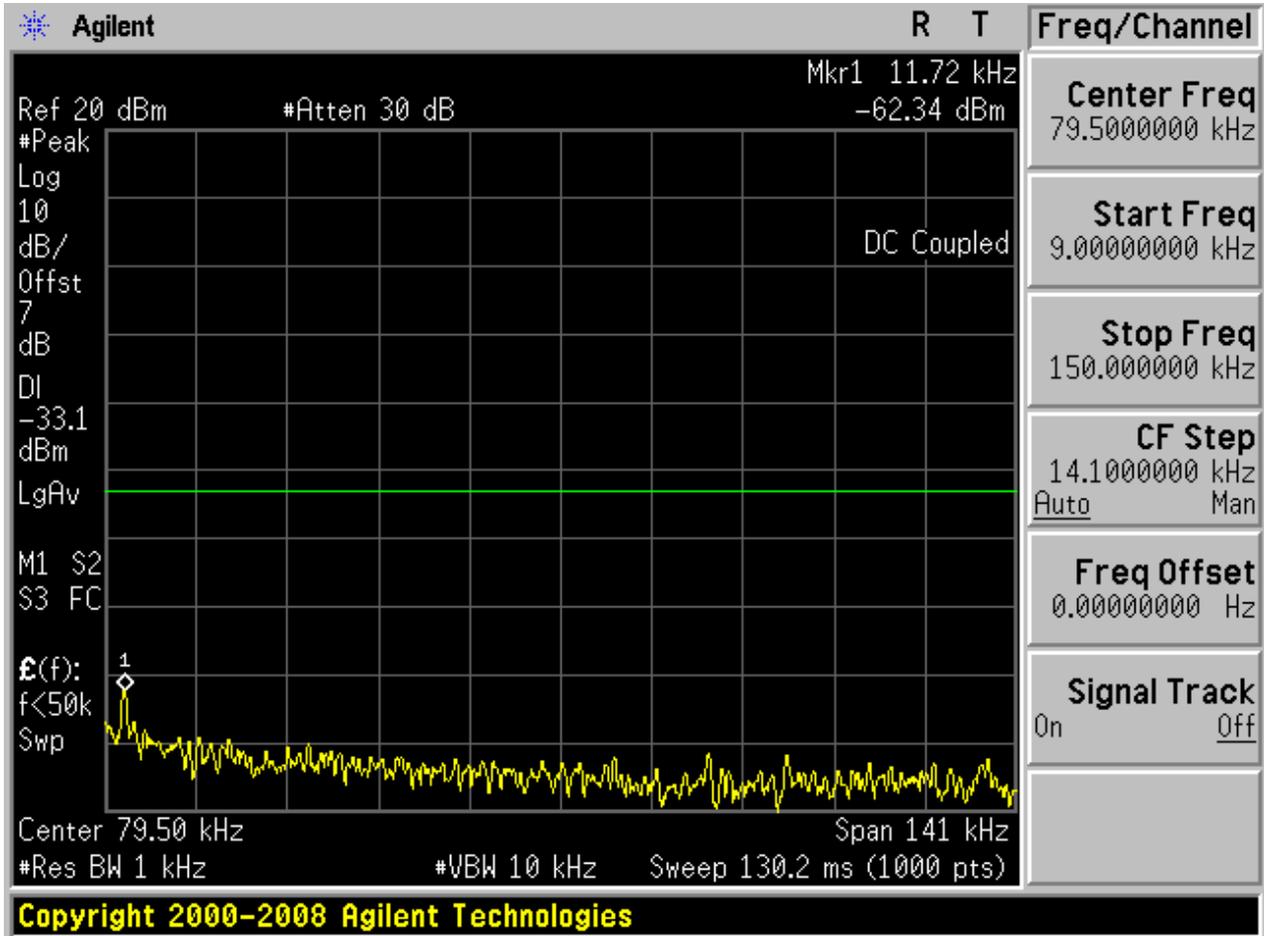
## 2.5 TM2\_2DH5\_Ch39

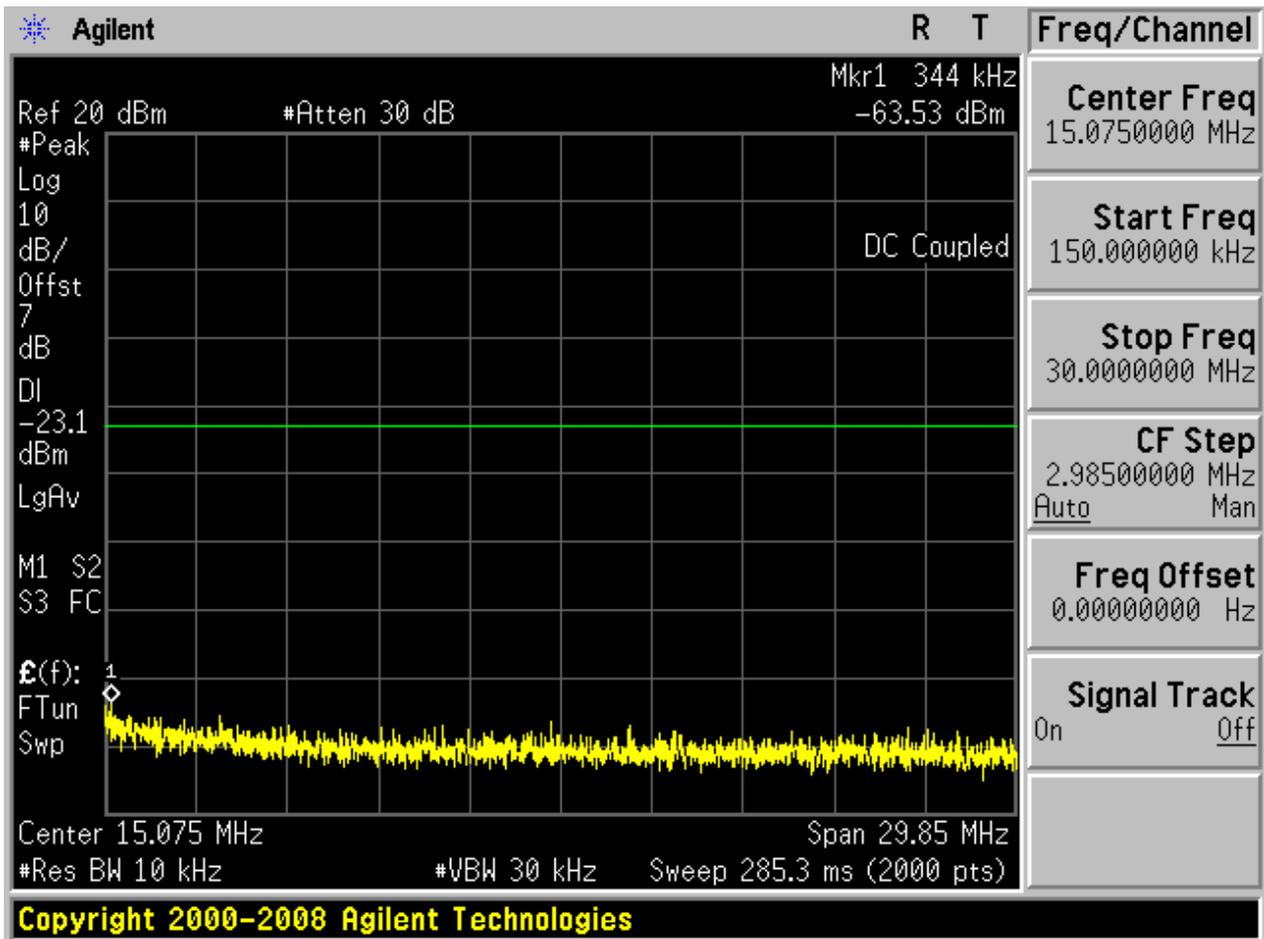
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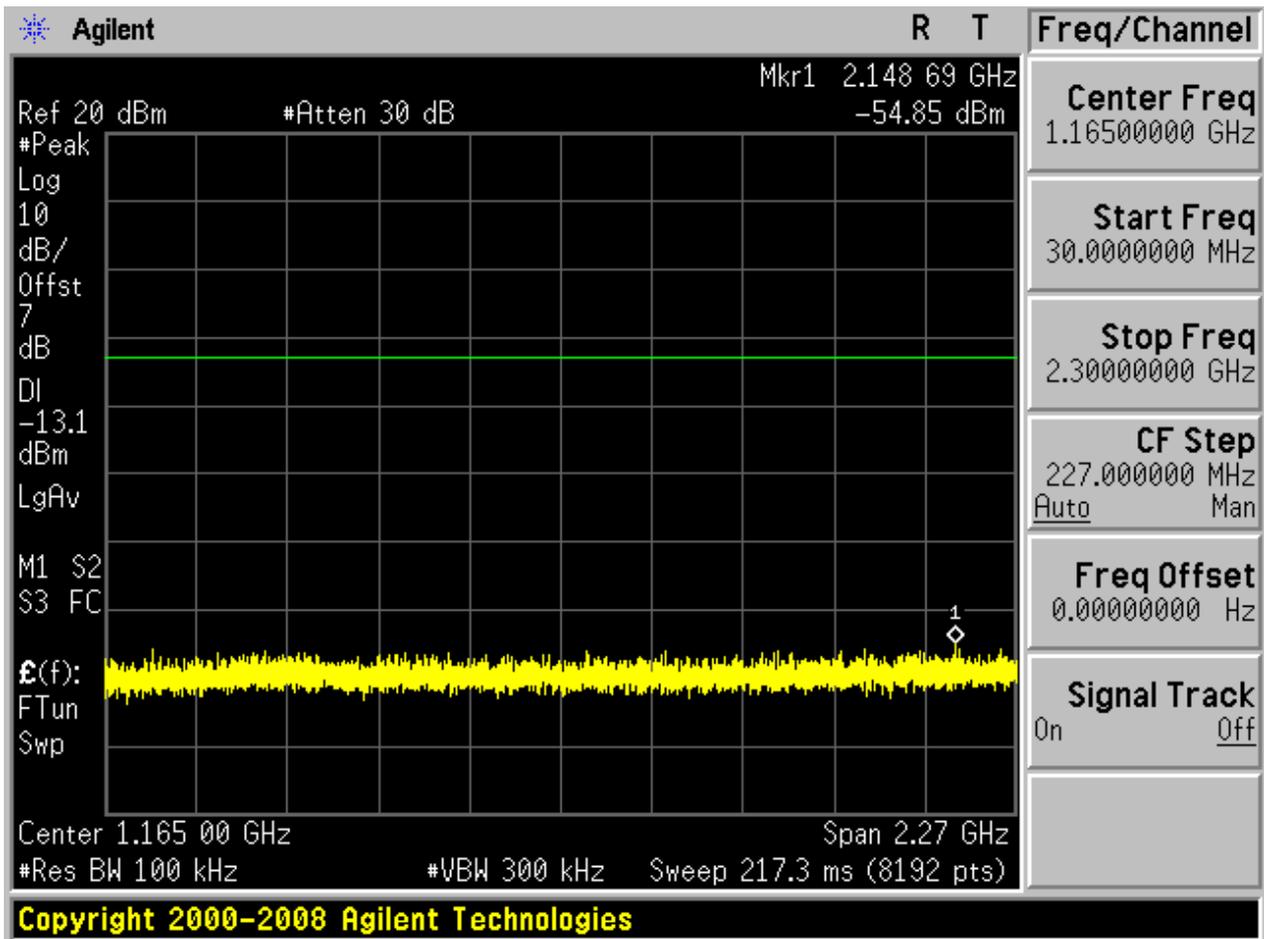


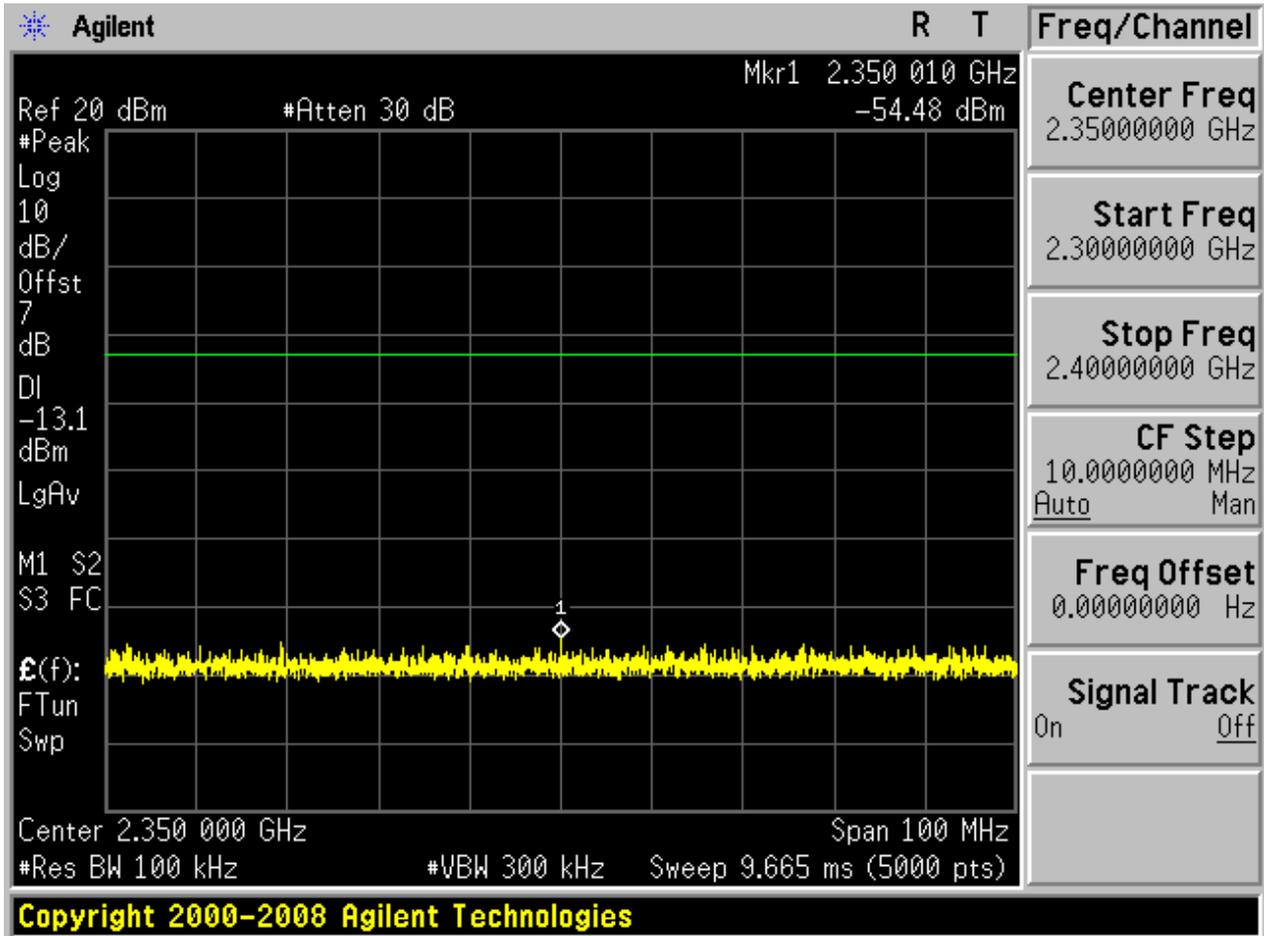


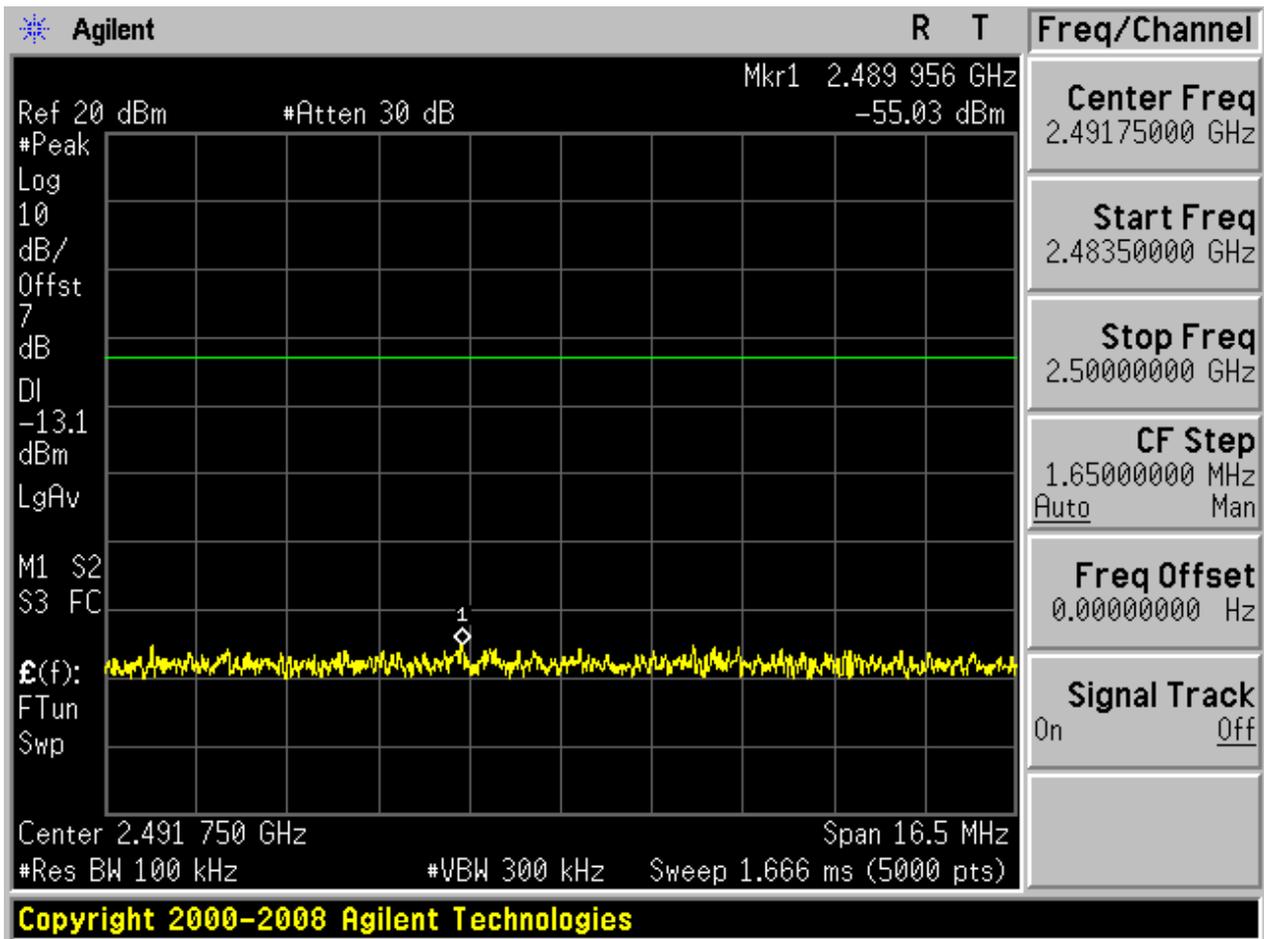
2.5.2 Puw

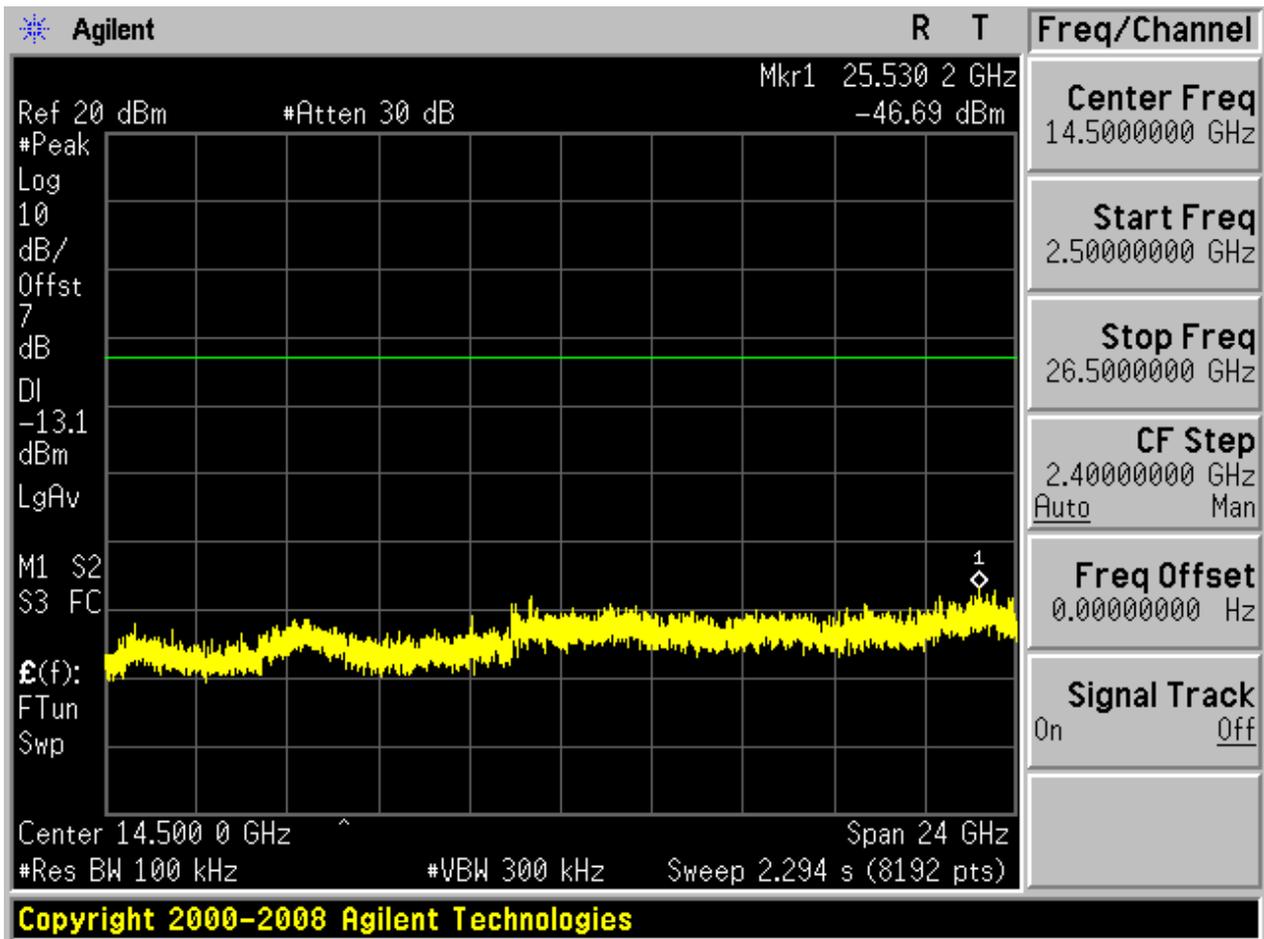








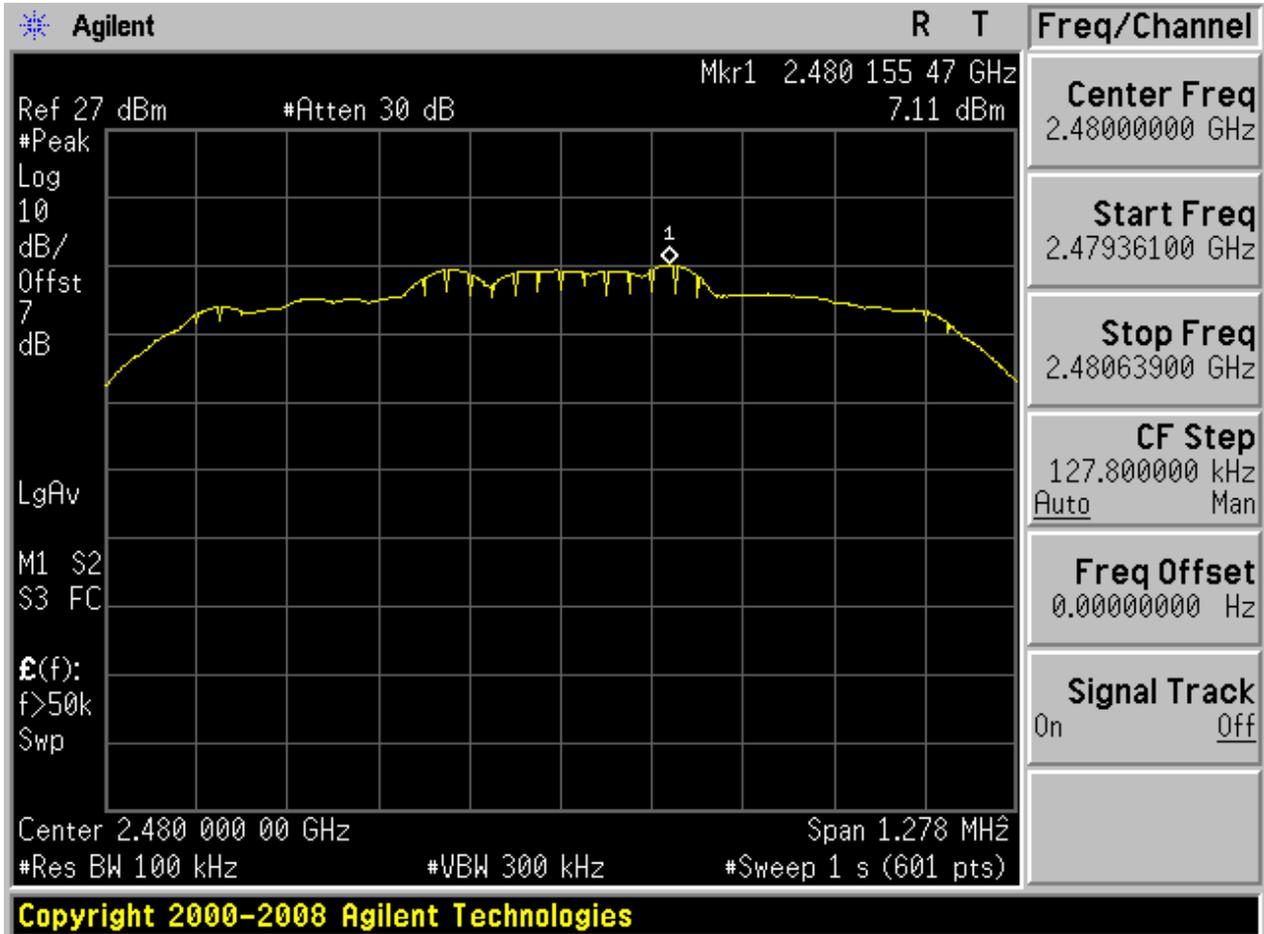






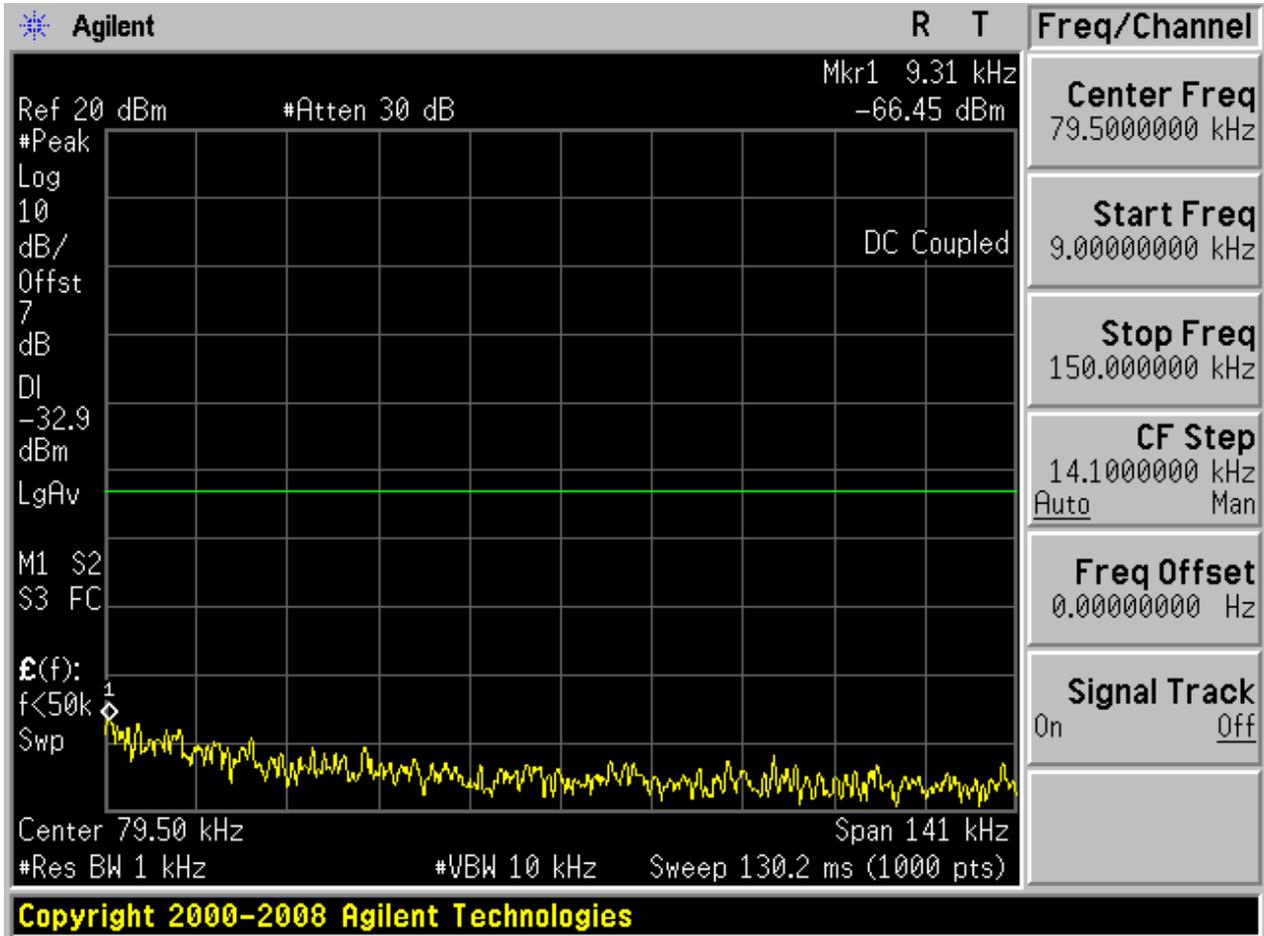
## 2.6 TM2\_2DH5\_Ch78

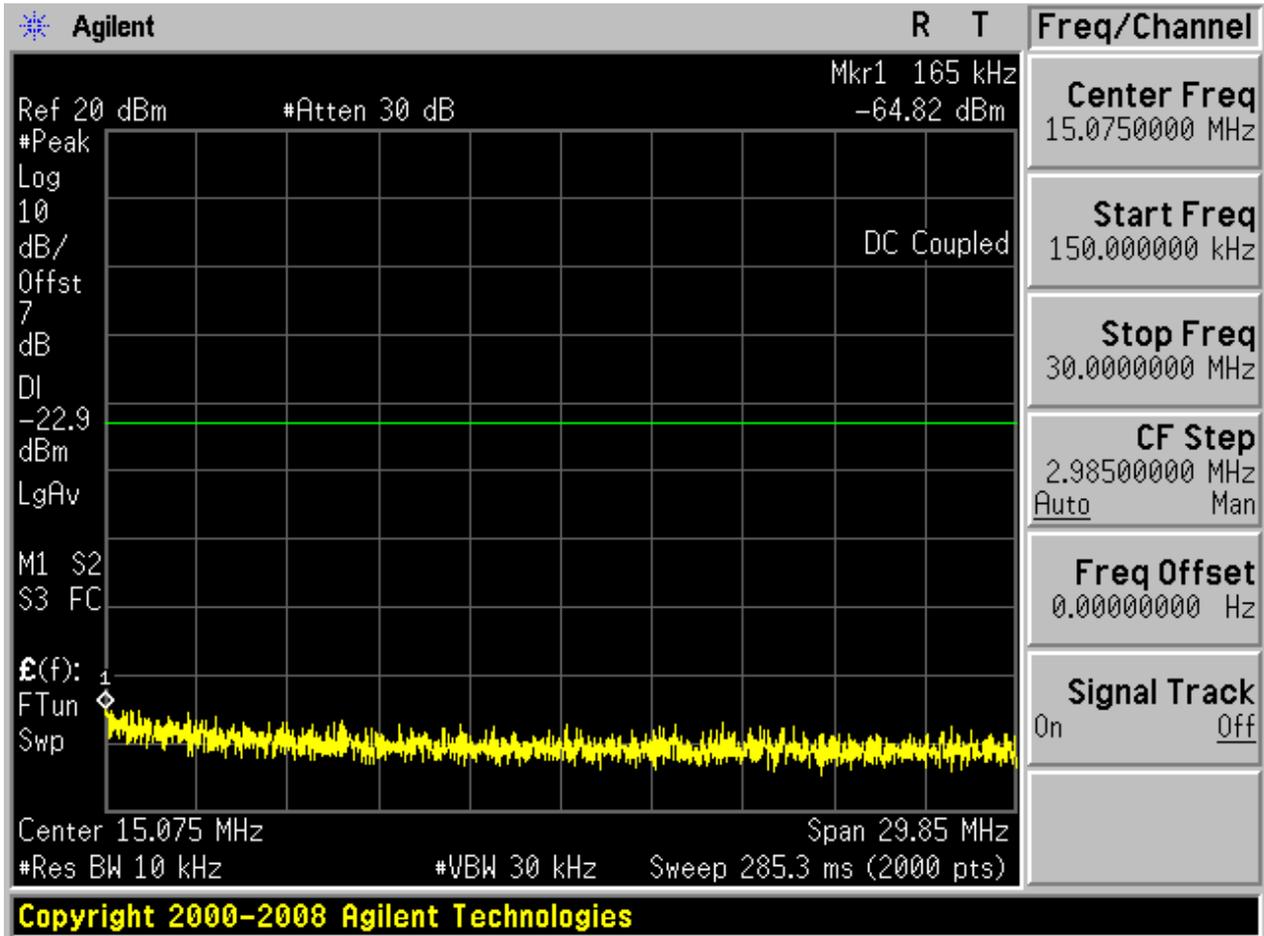
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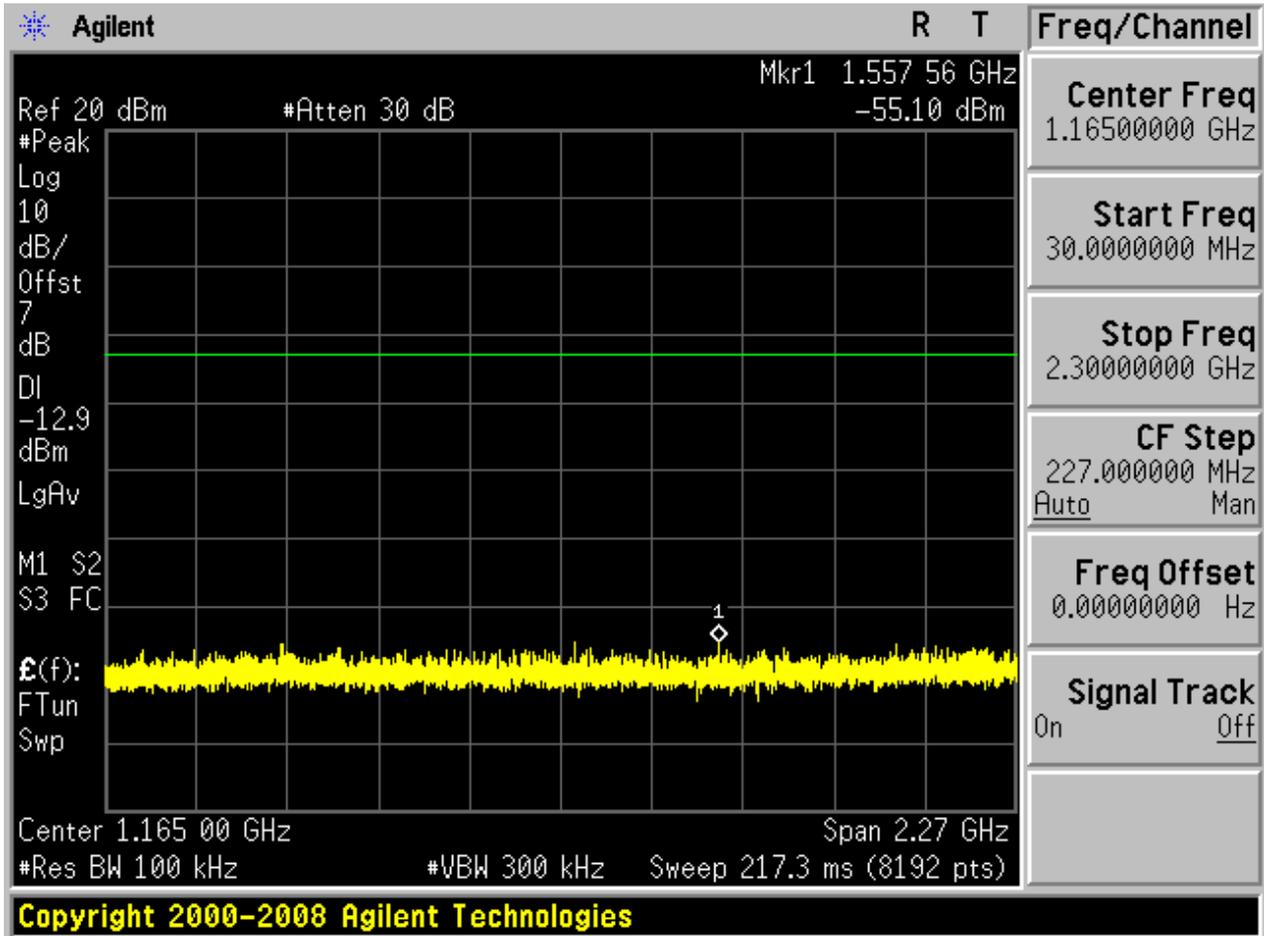


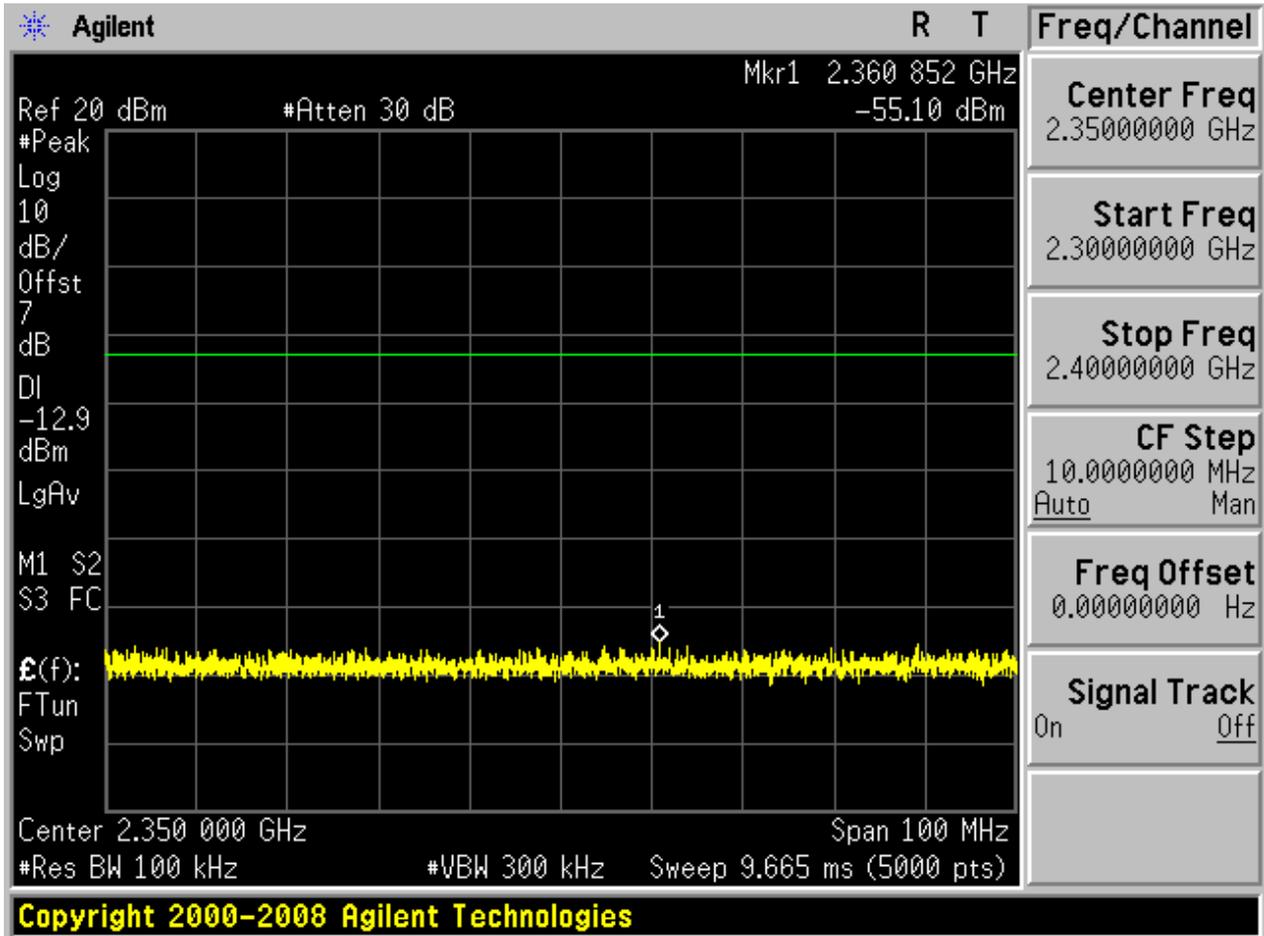


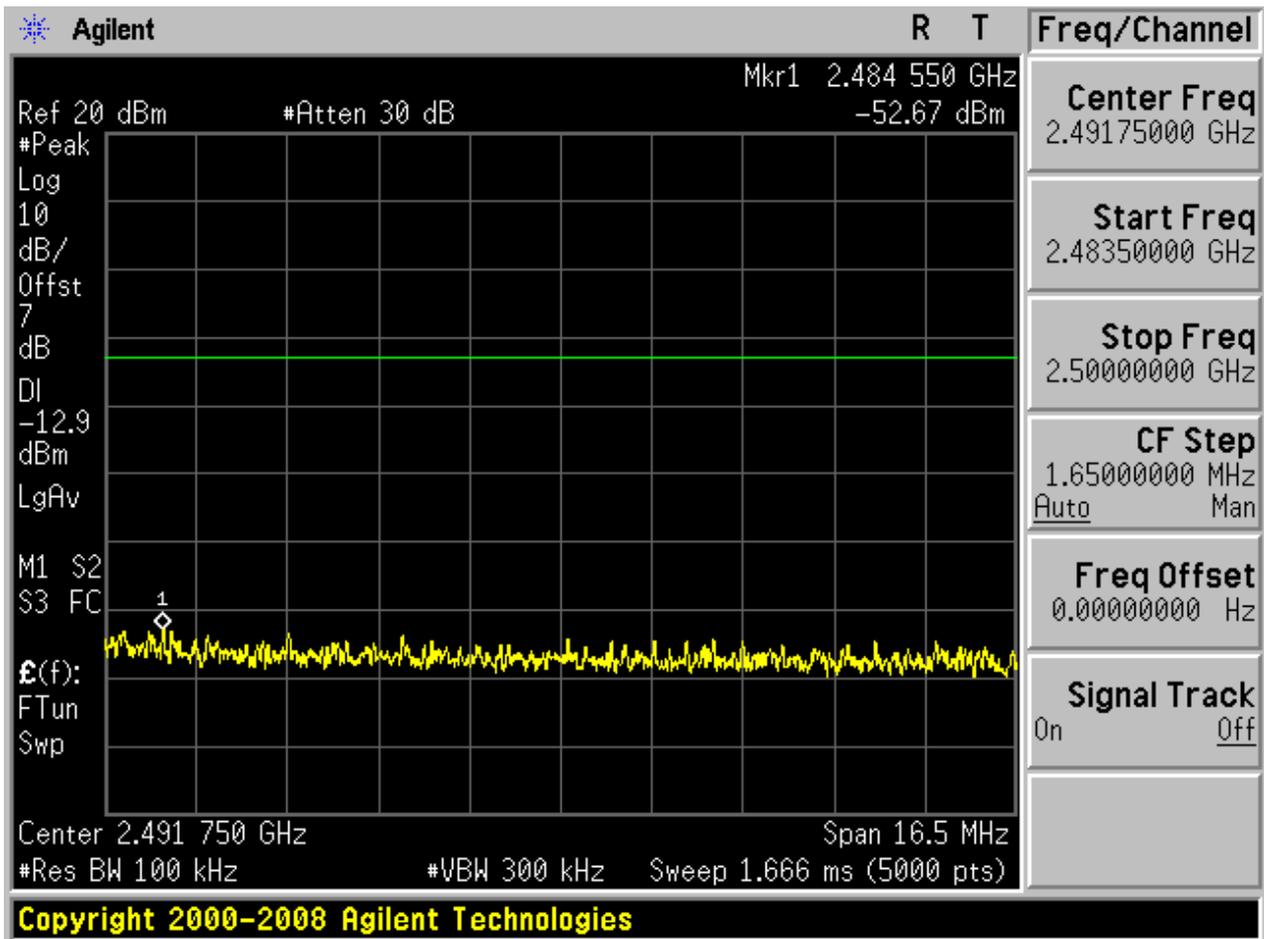
2.6.2 P<sub>uw</sub>

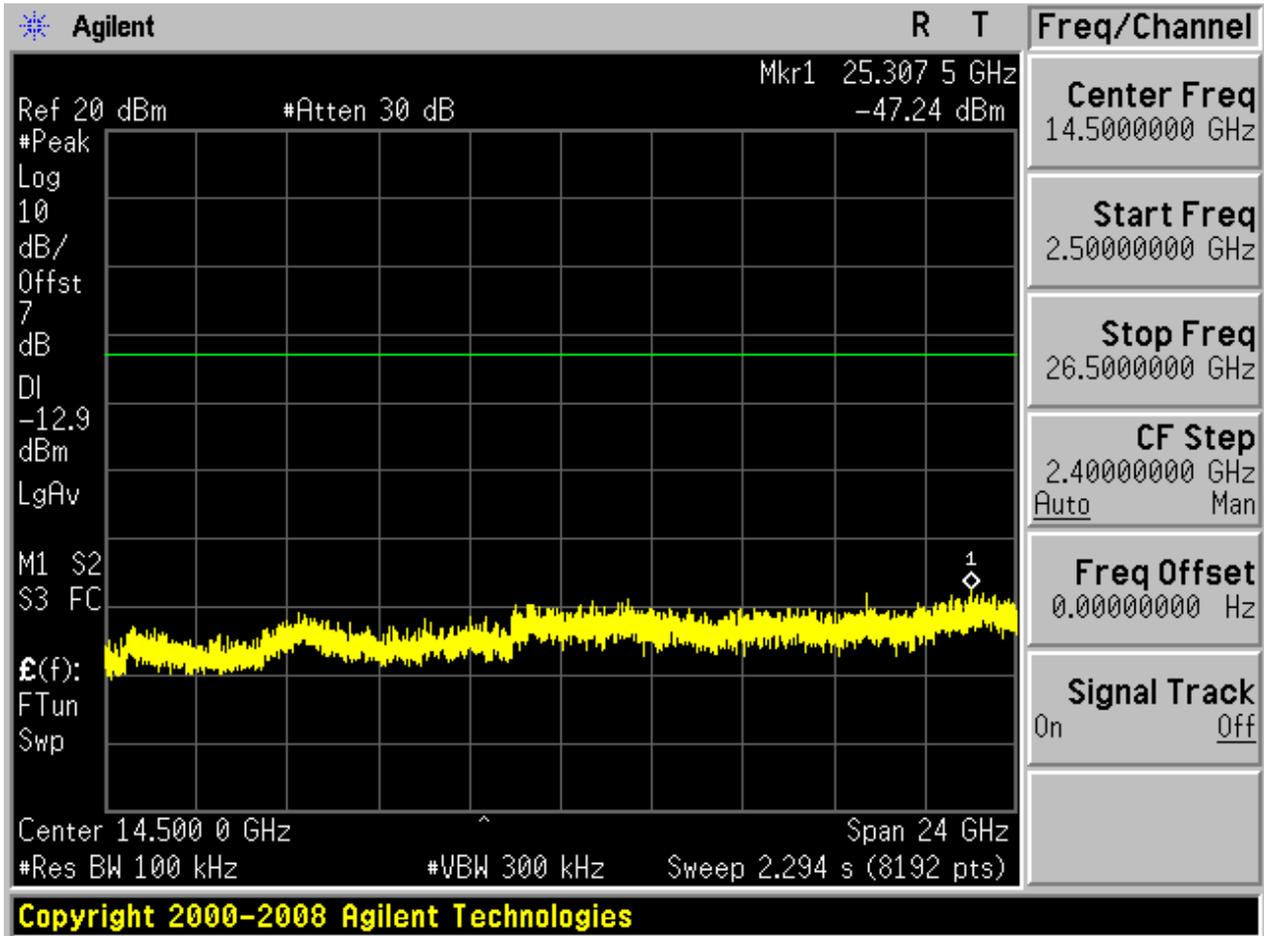








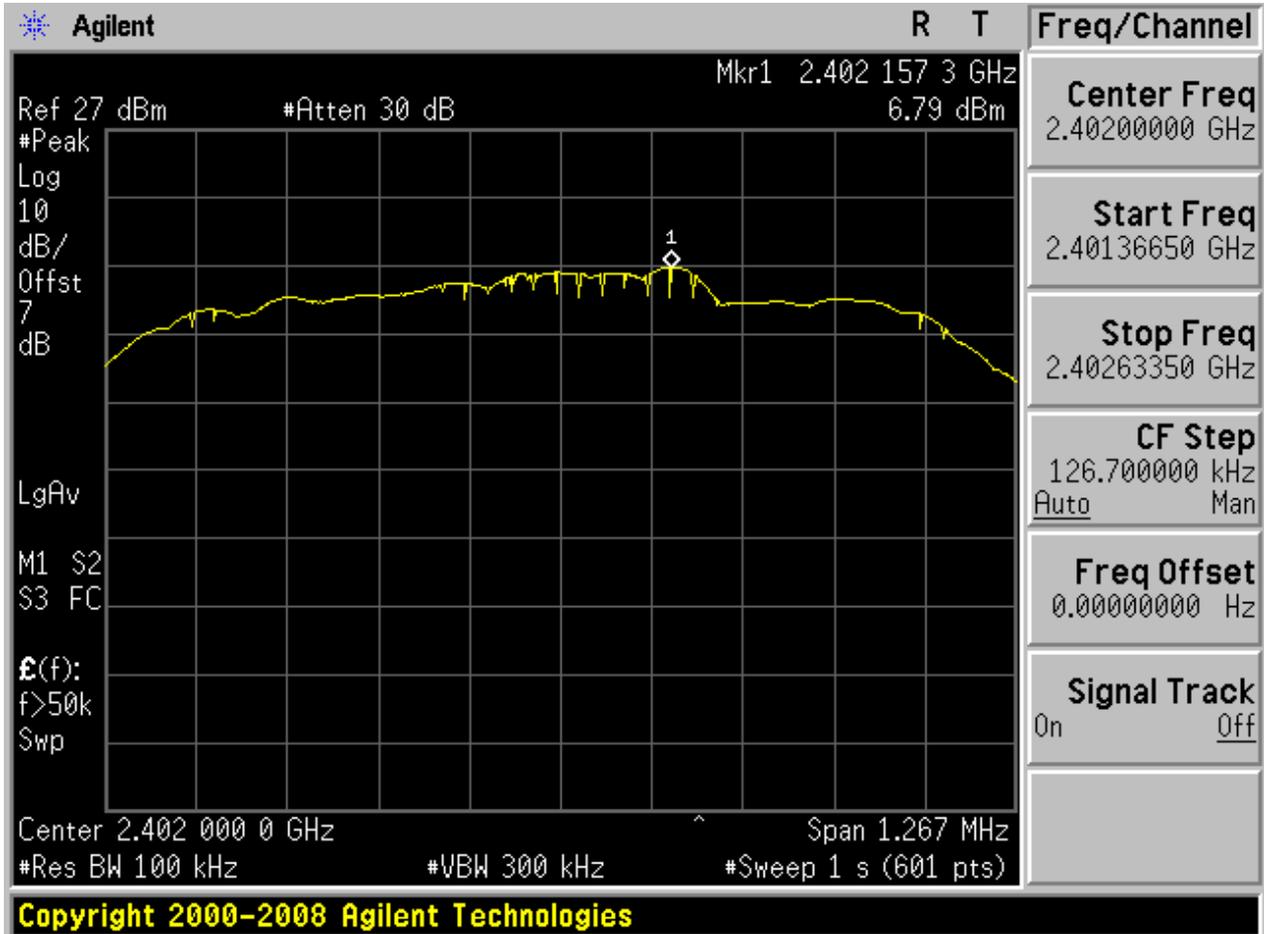






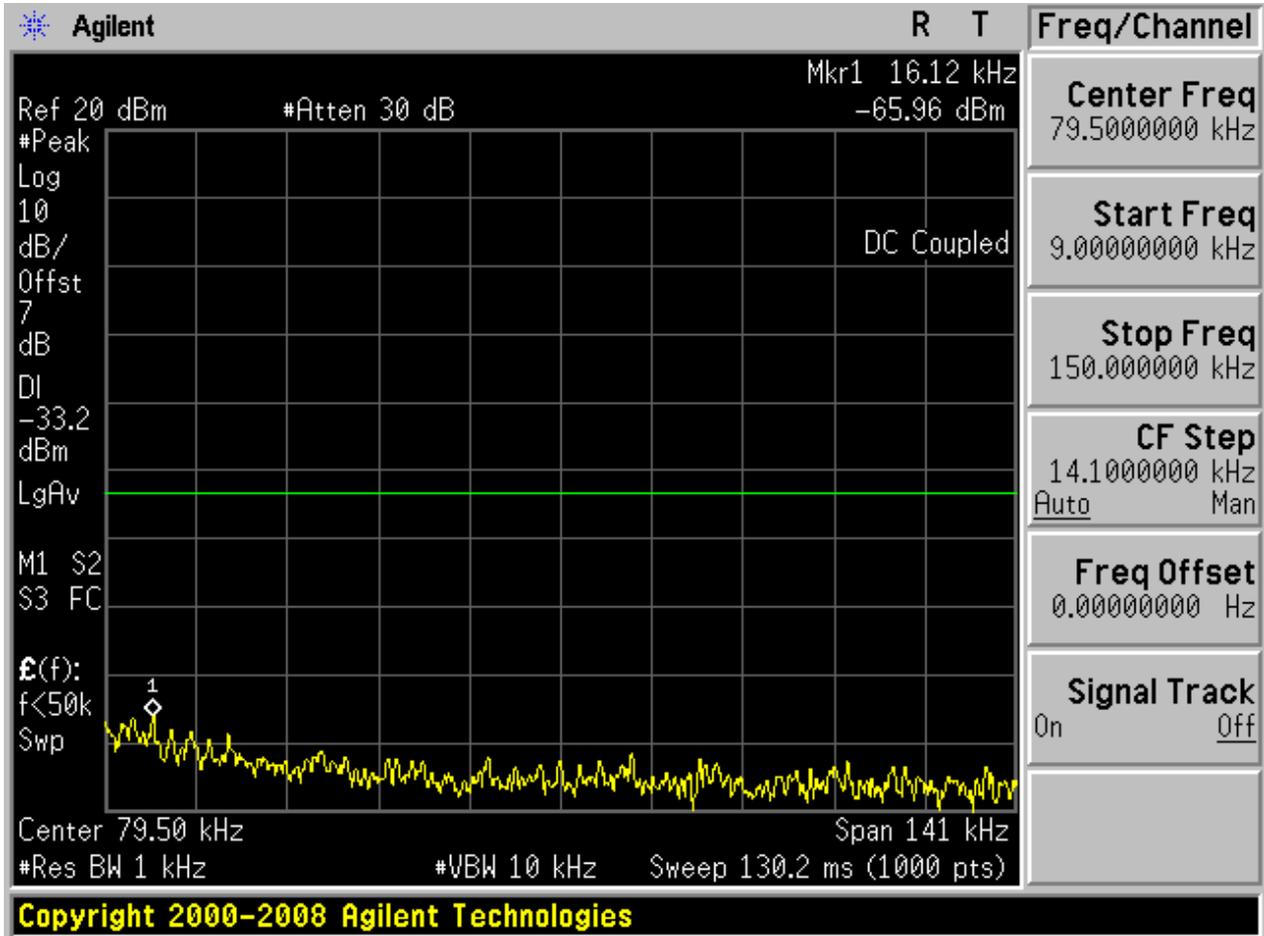
## 2.7 TM3\_3DH5\_Ch0

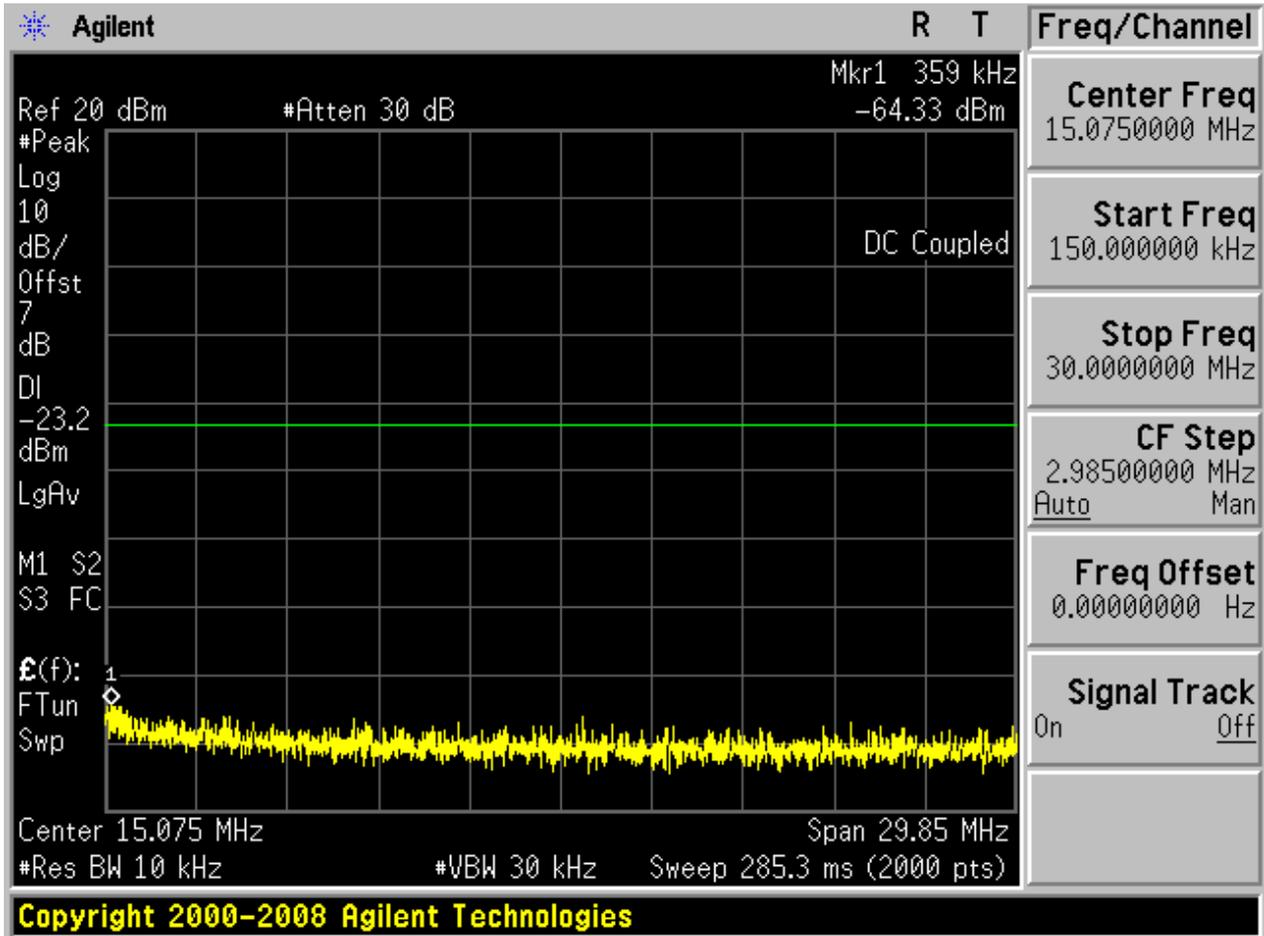
### 2.7.1 Pref

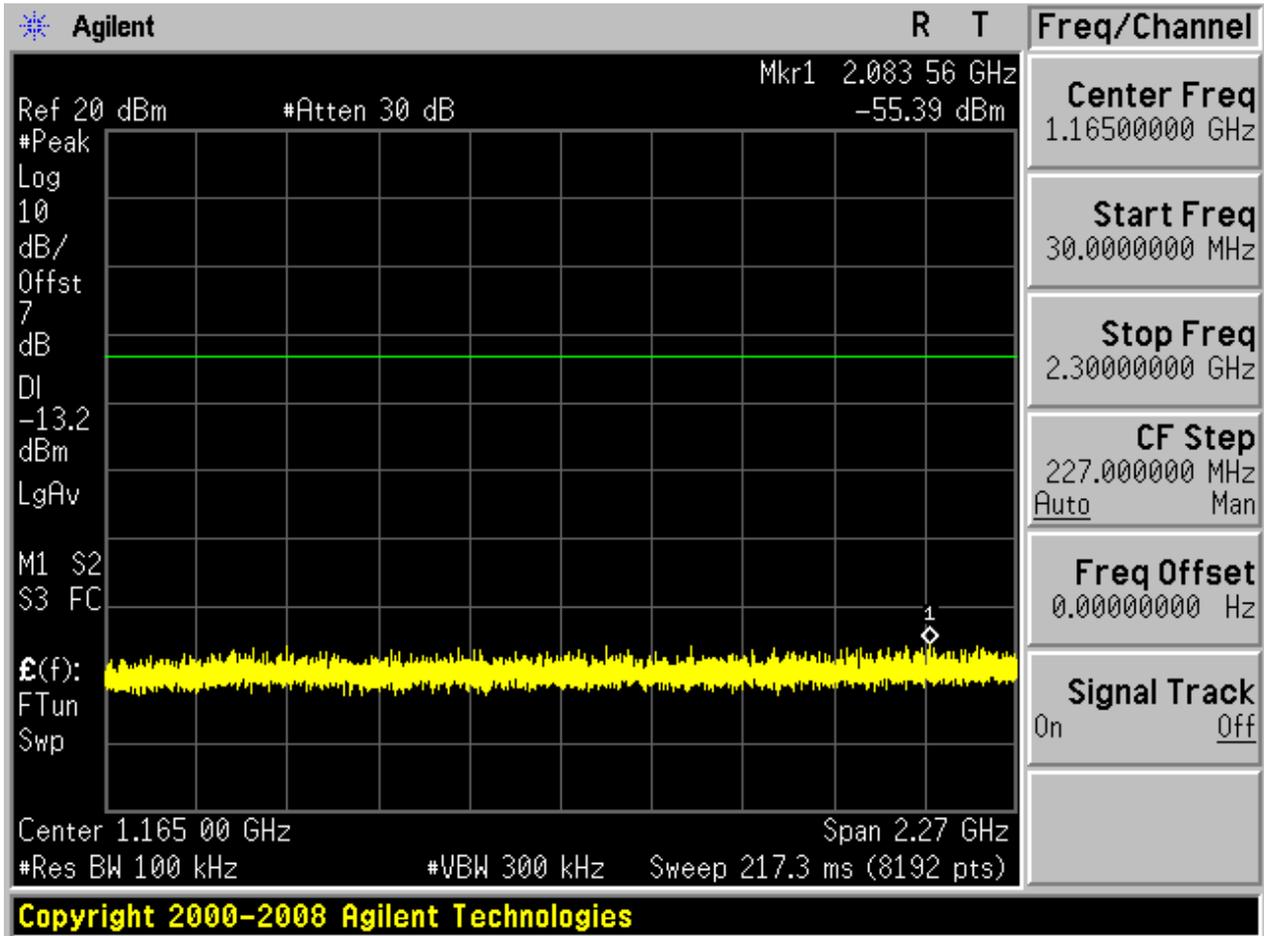


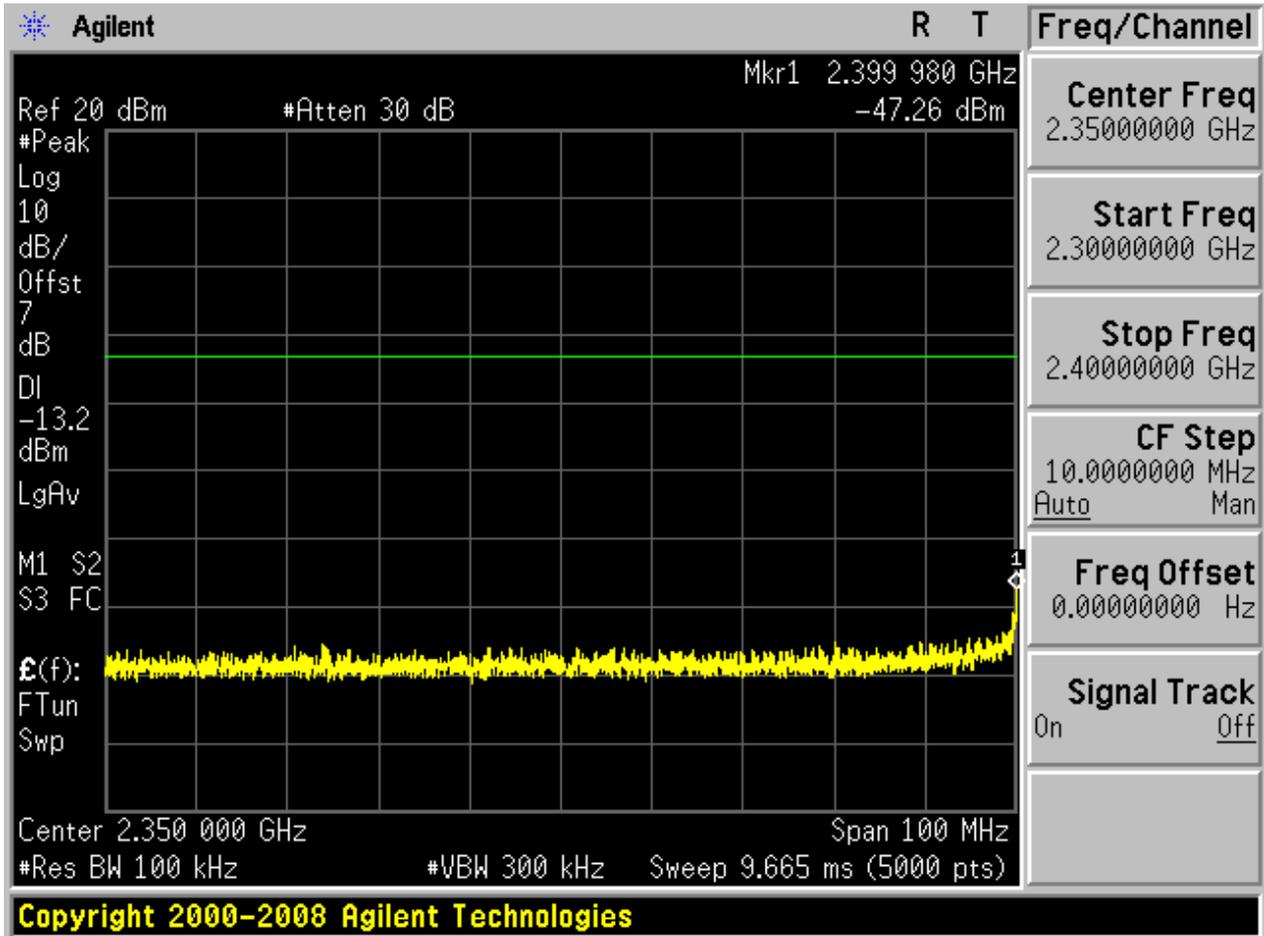


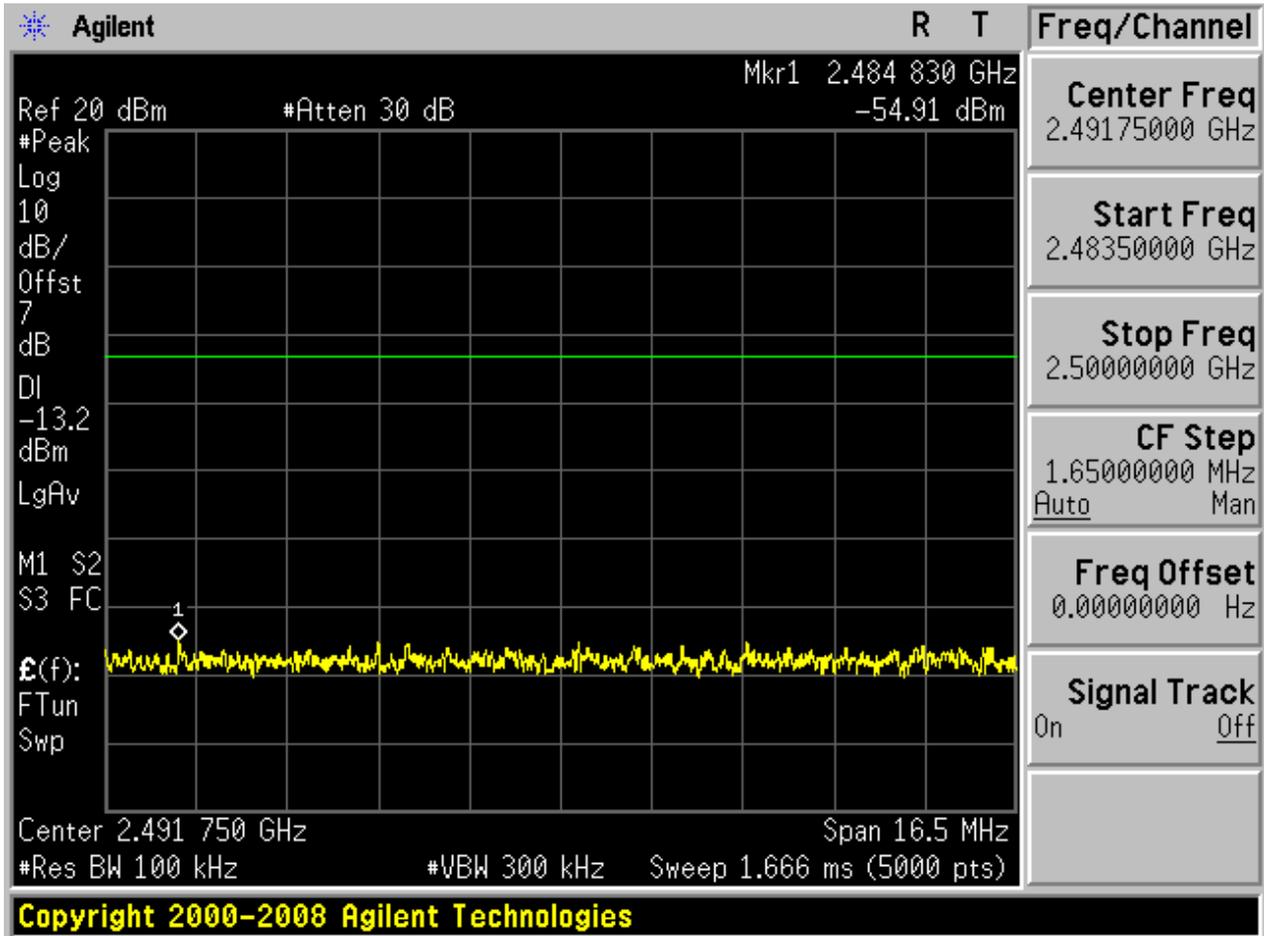
2.7.2 Puw

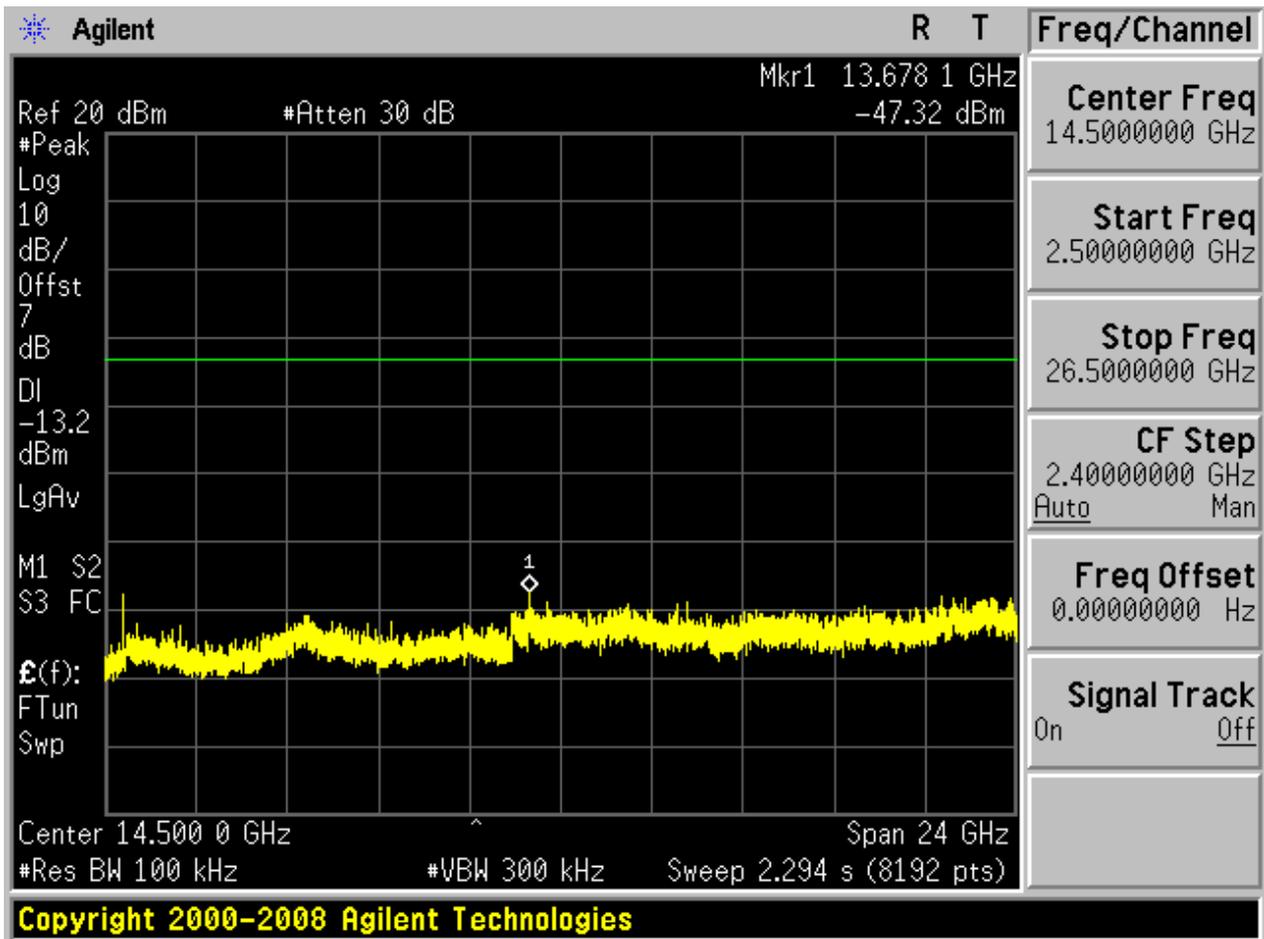








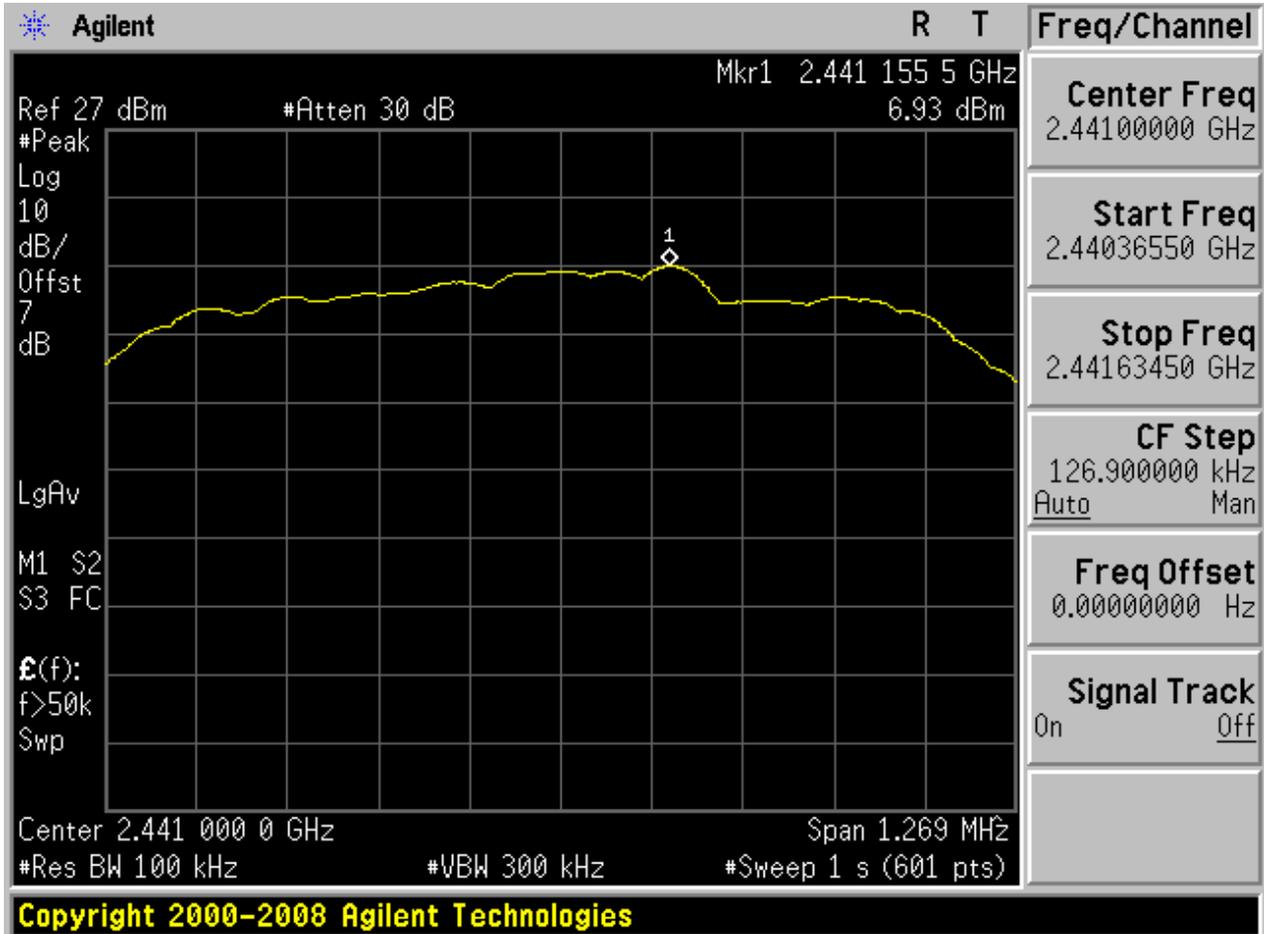




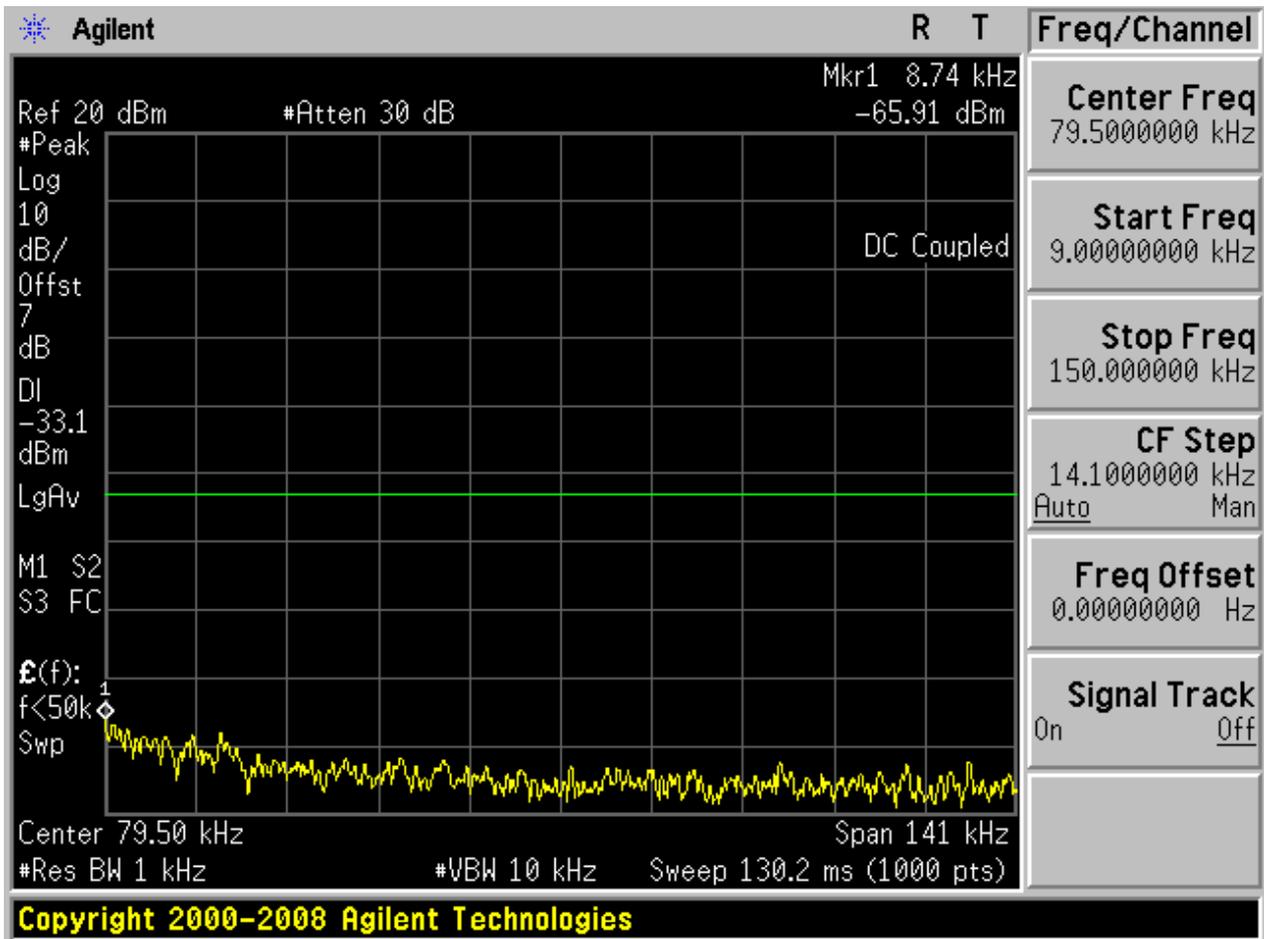


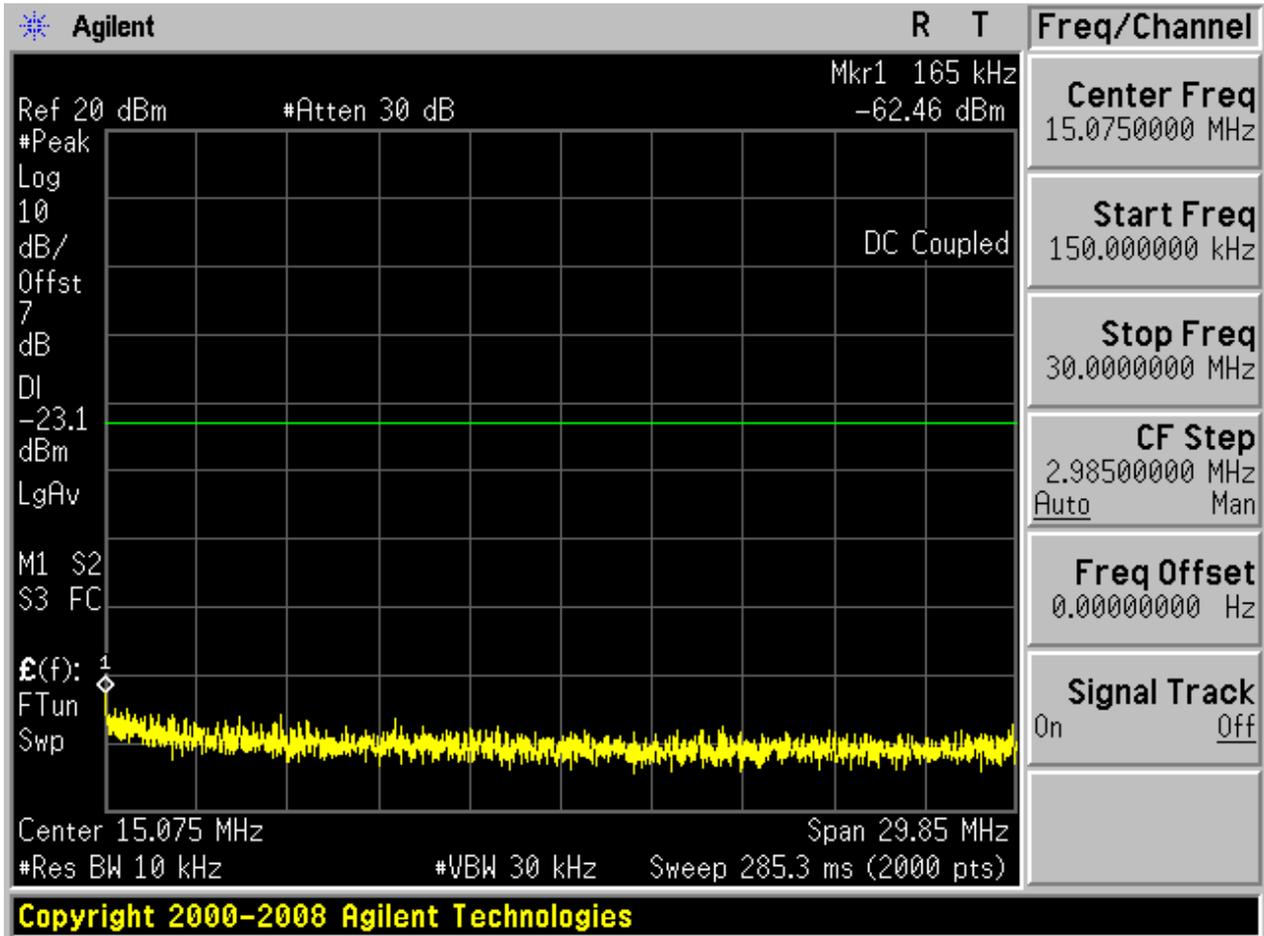
## 2.8 TM3\_3DH5\_Ch39

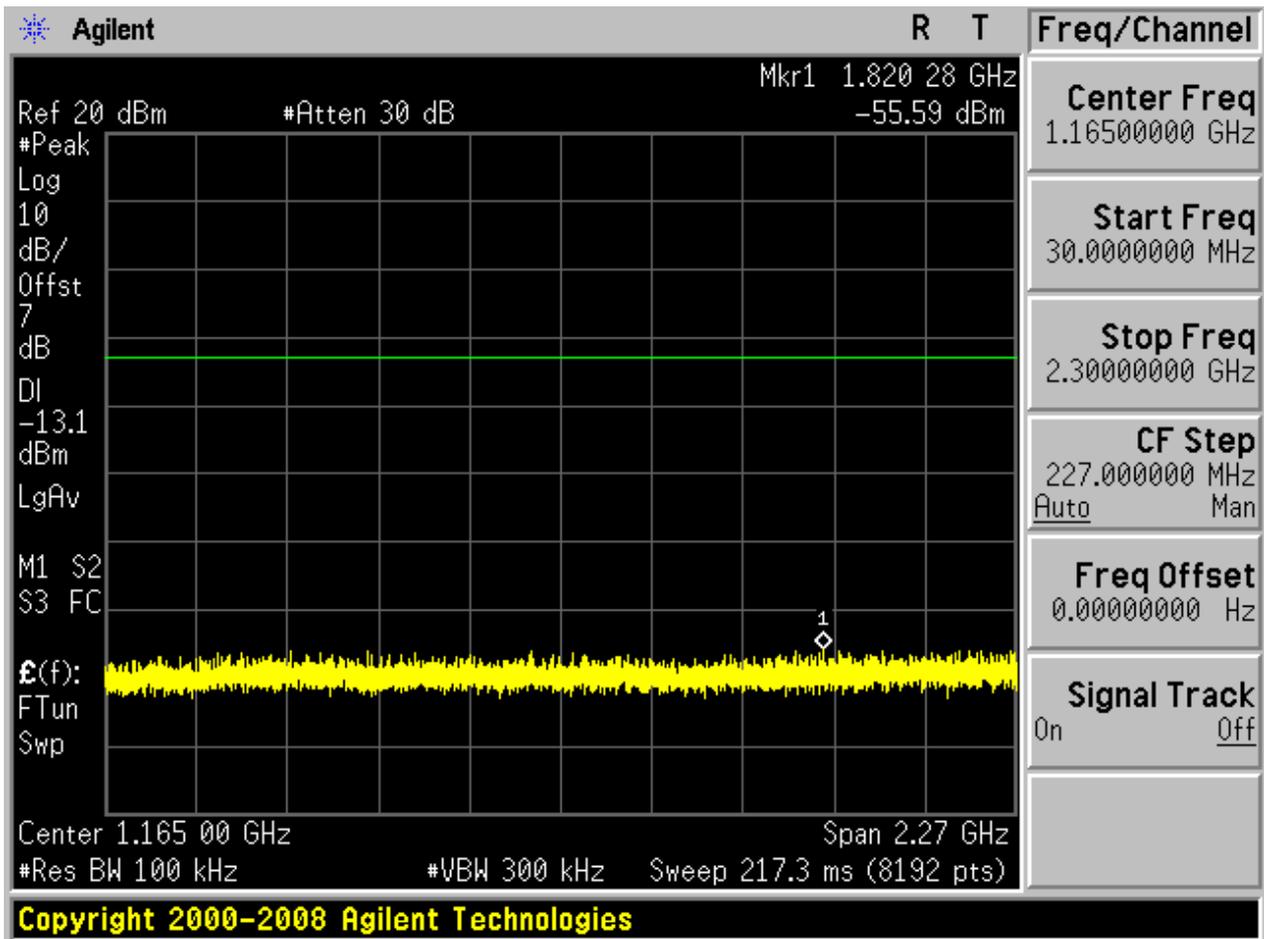
### 2.8.1 Pref

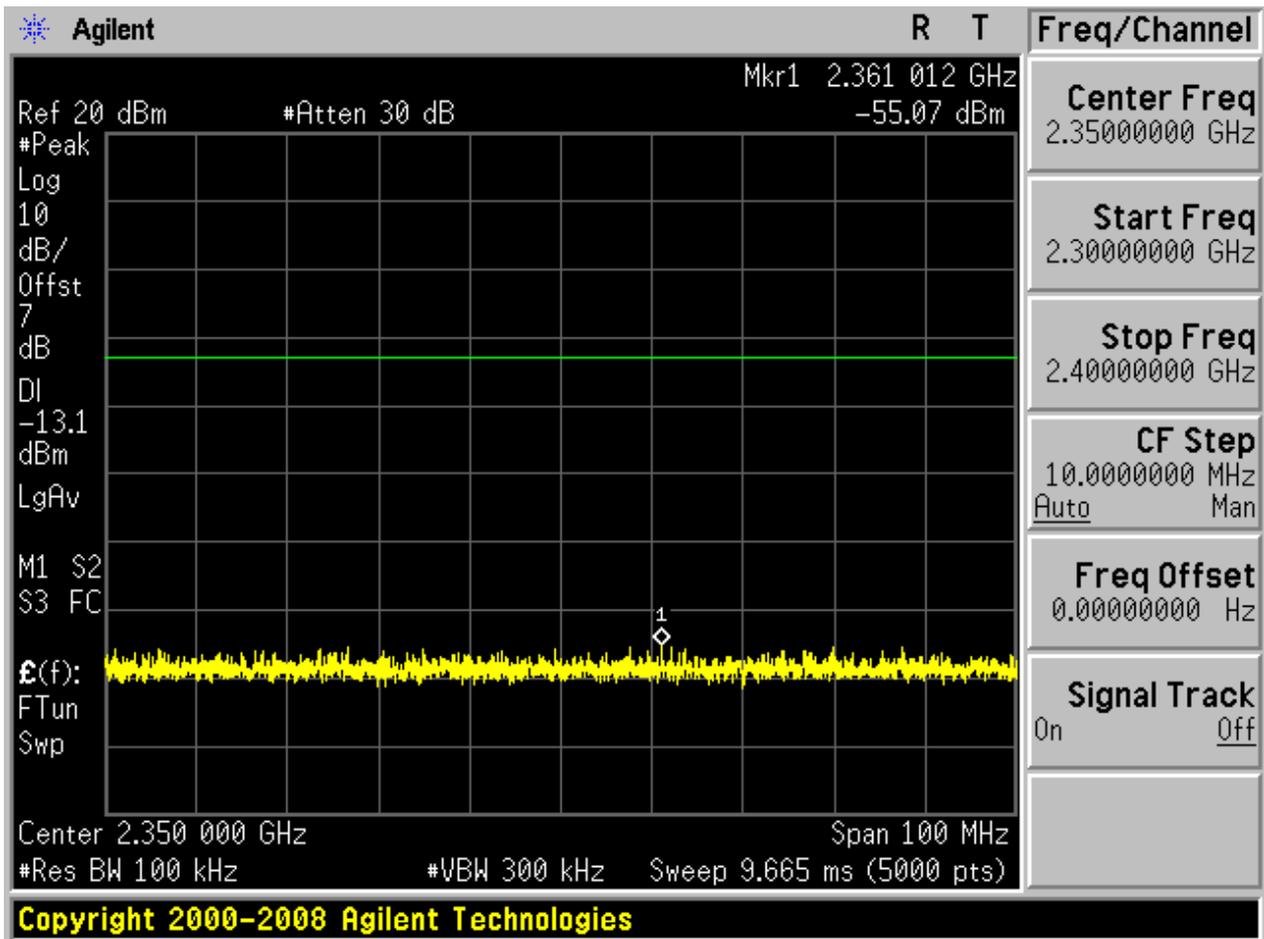


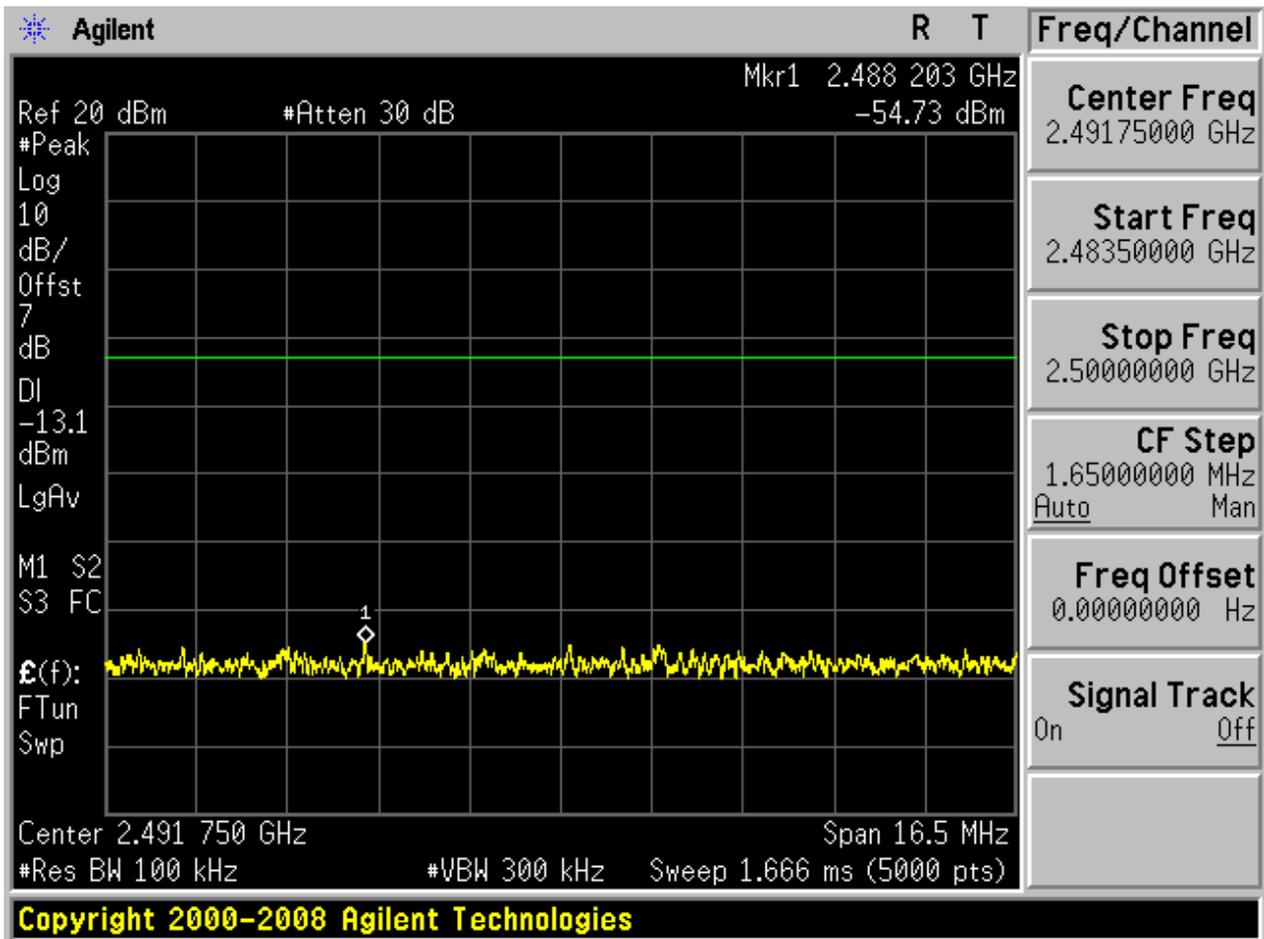
2.8.2 Puw

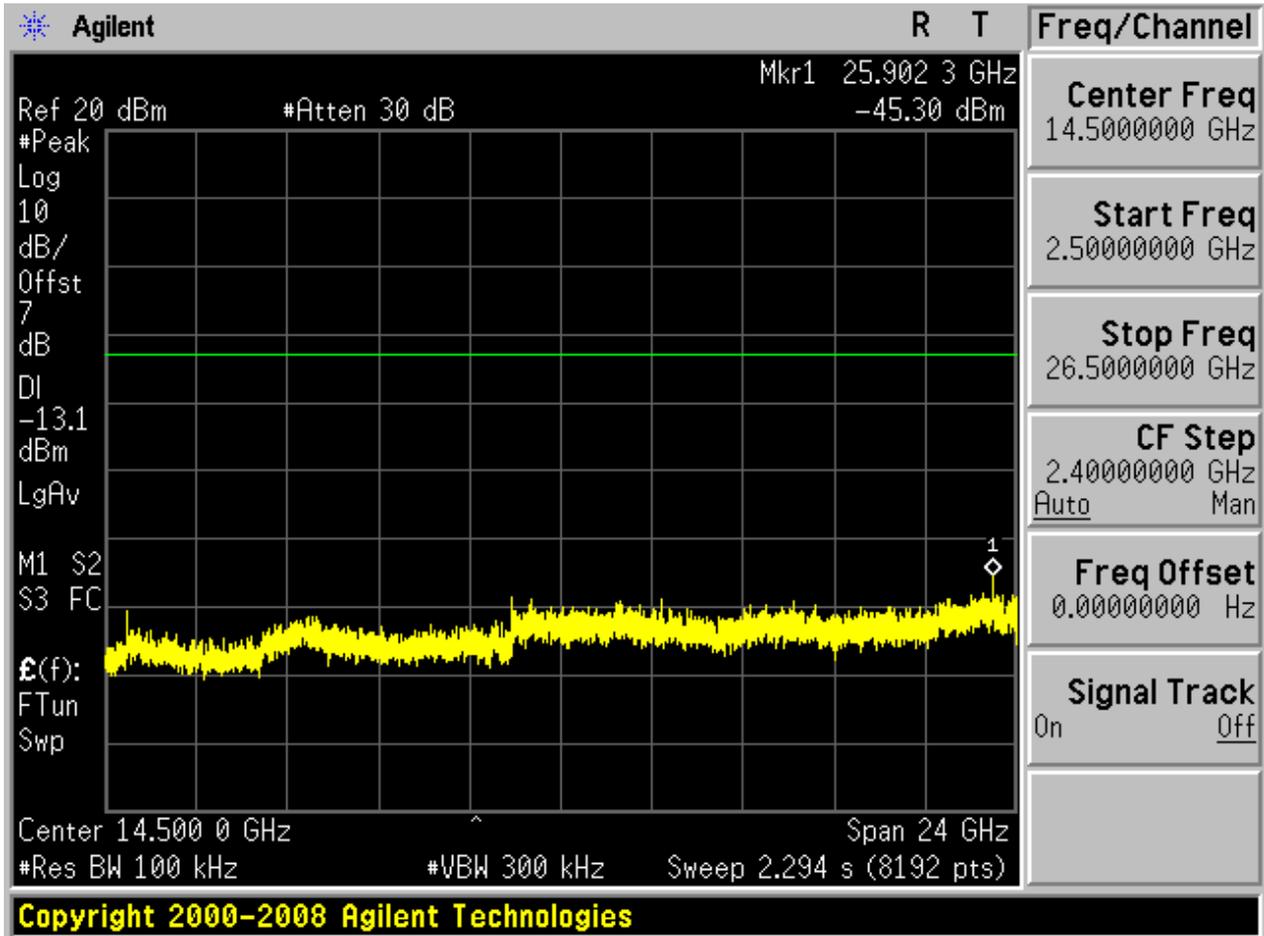








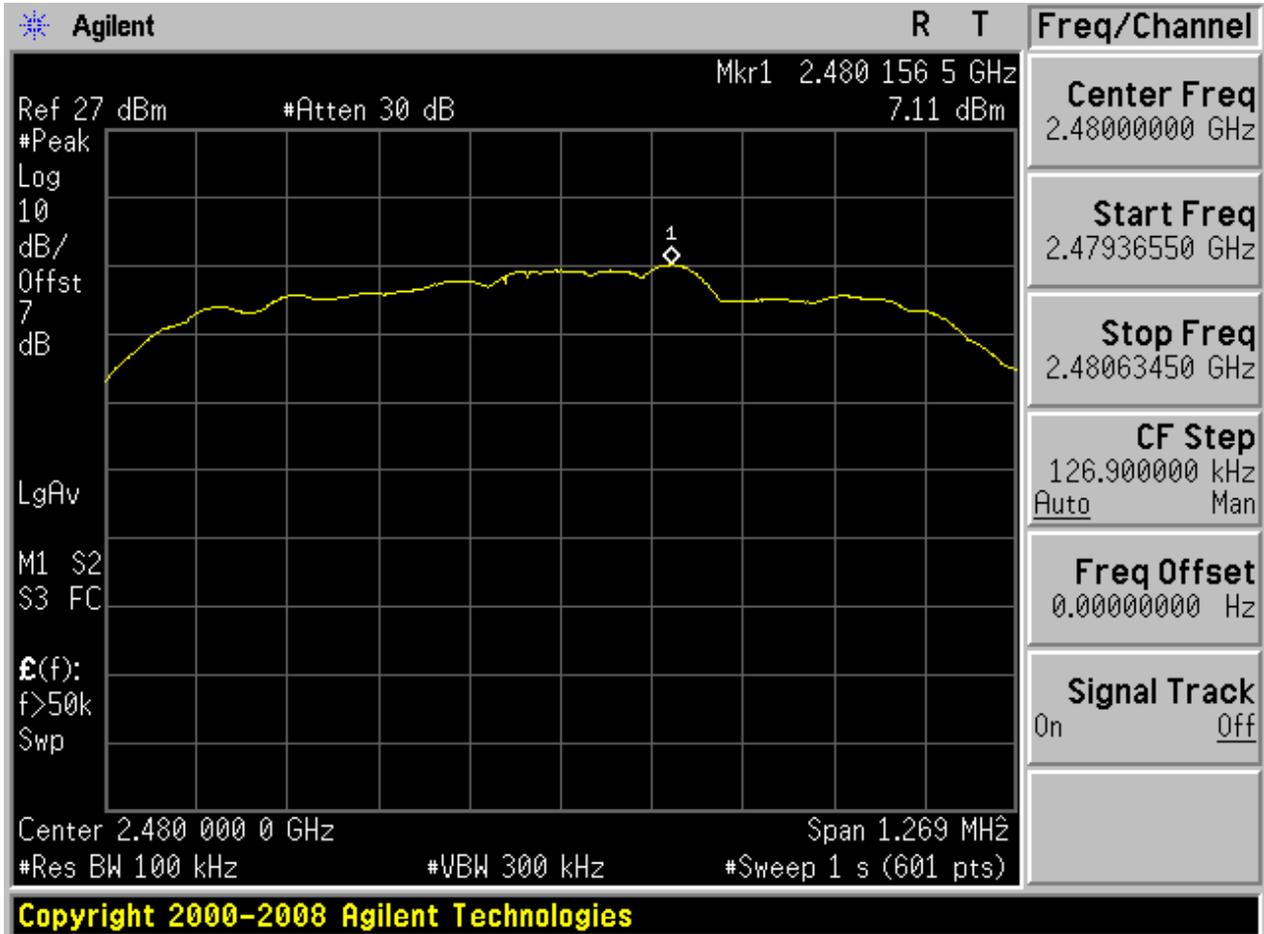






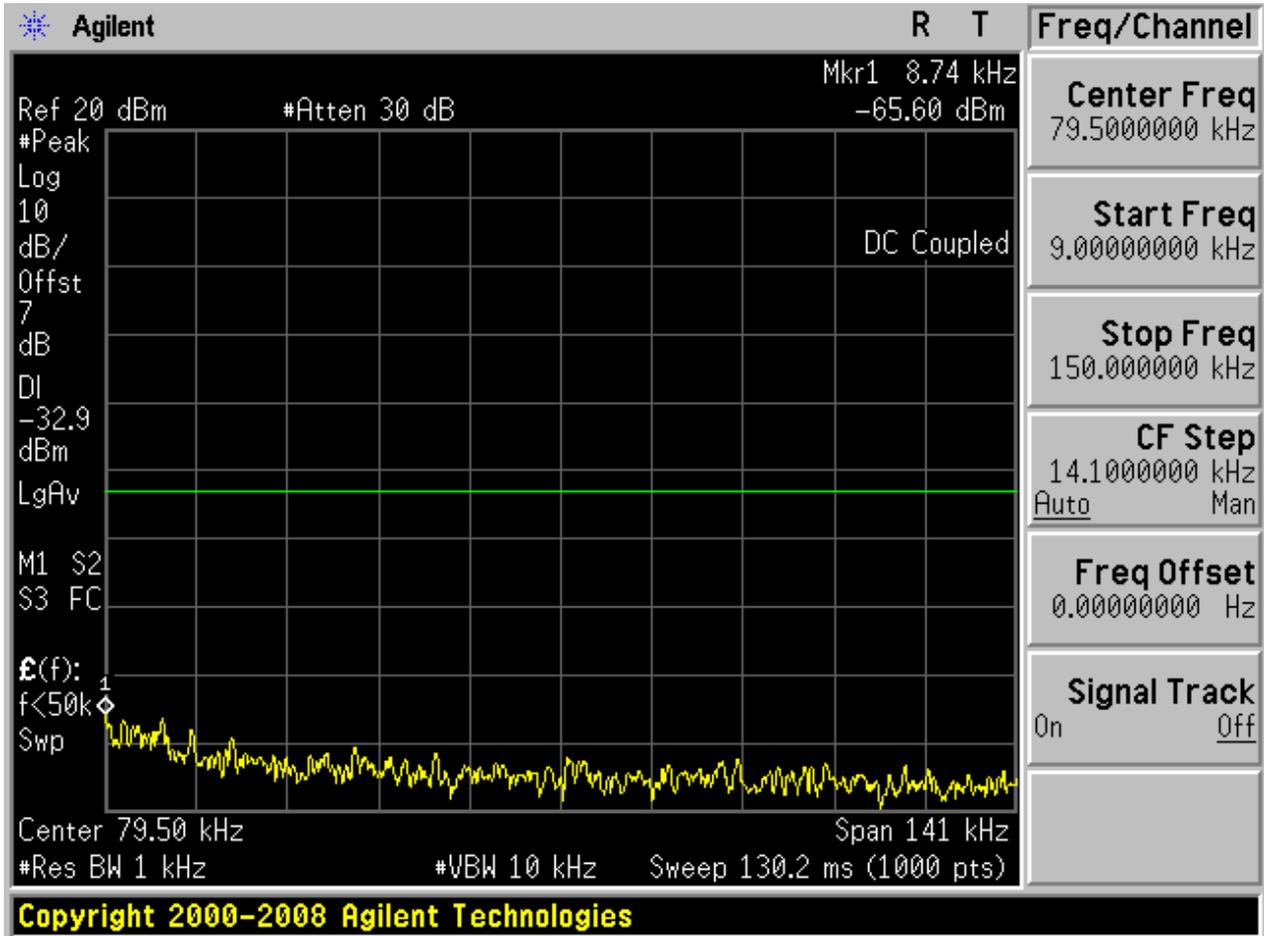
## 2.9 TM3\_3DH5\_Ch78

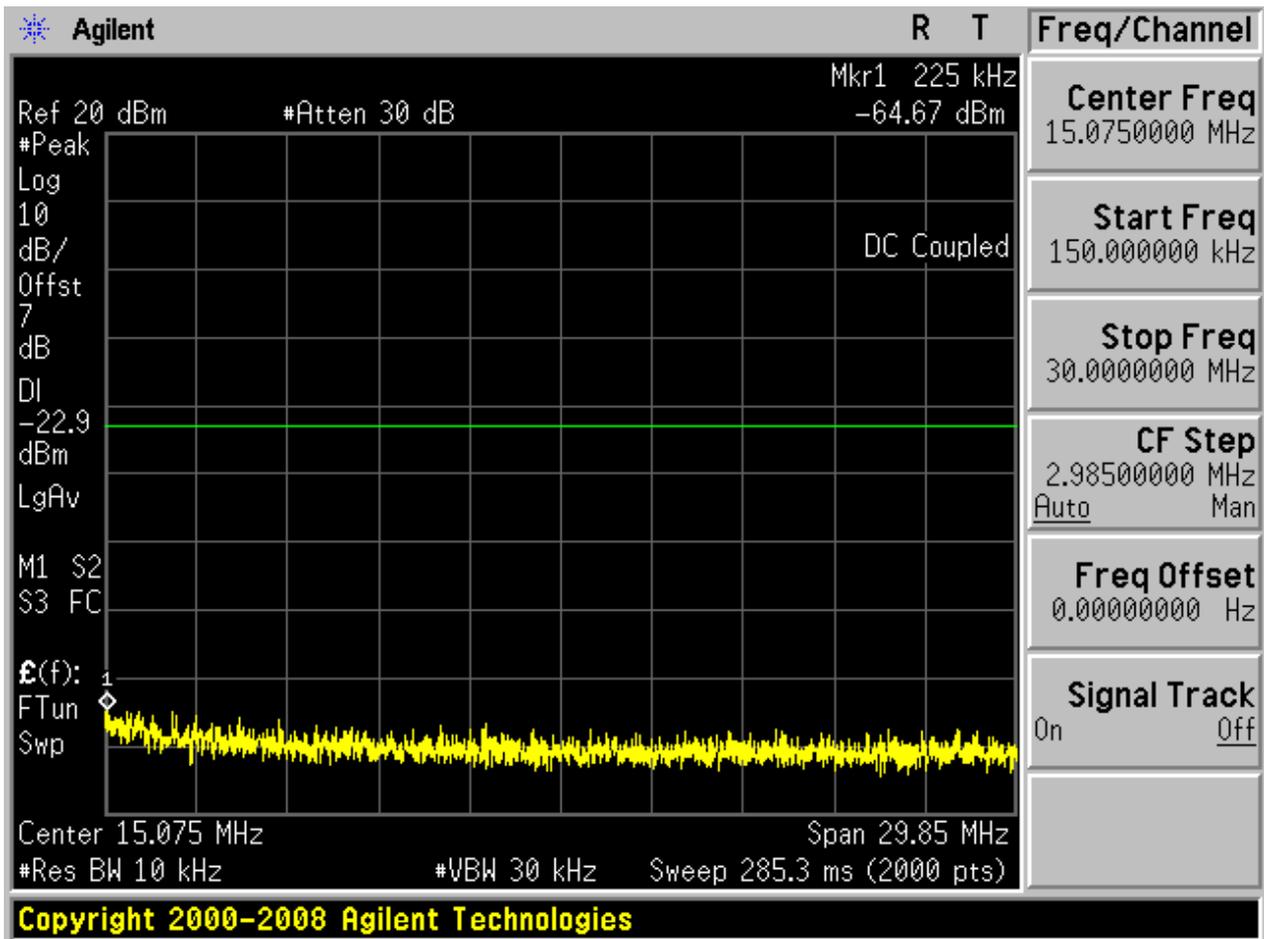
### 2.9.1 Pref

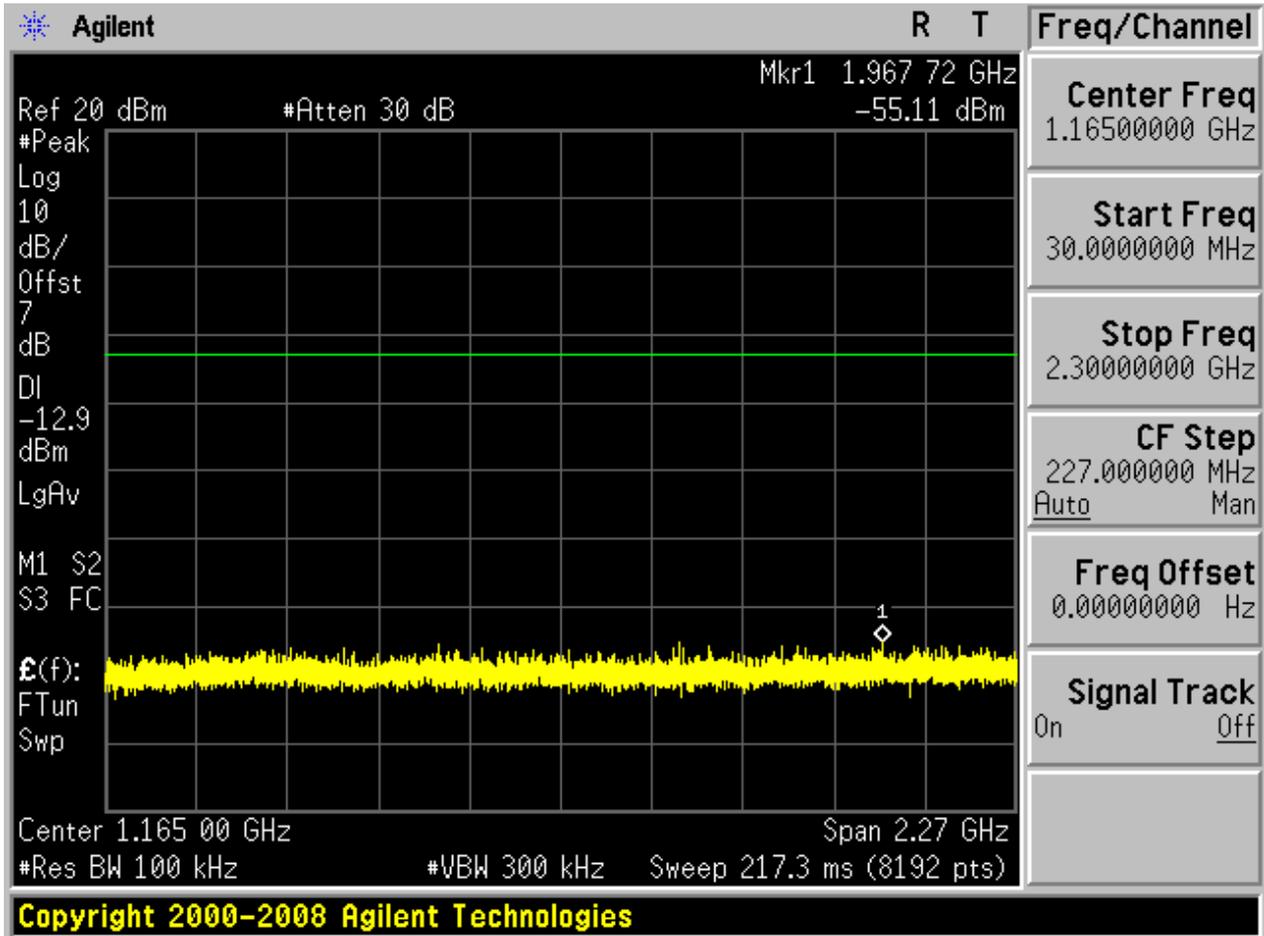


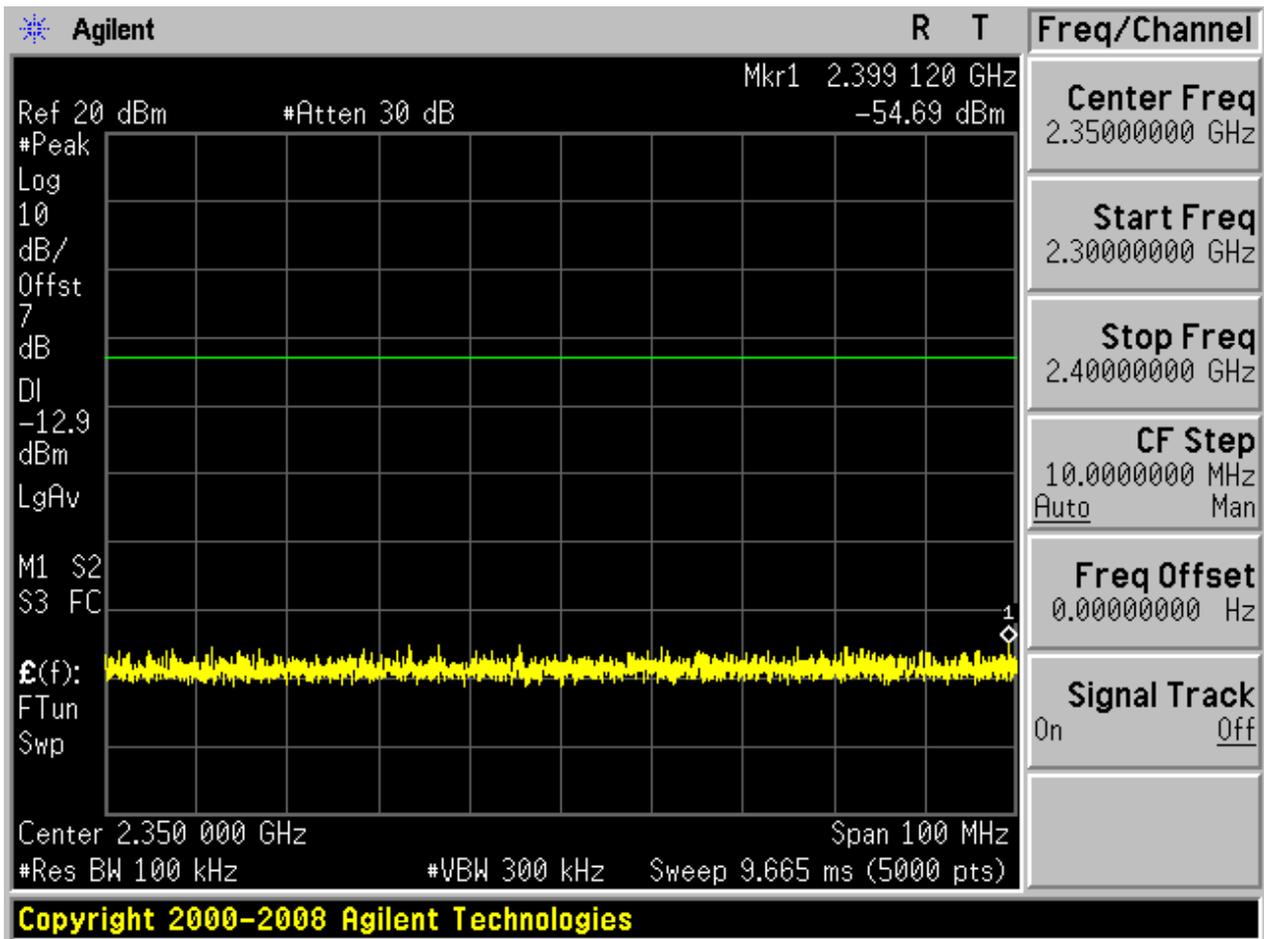


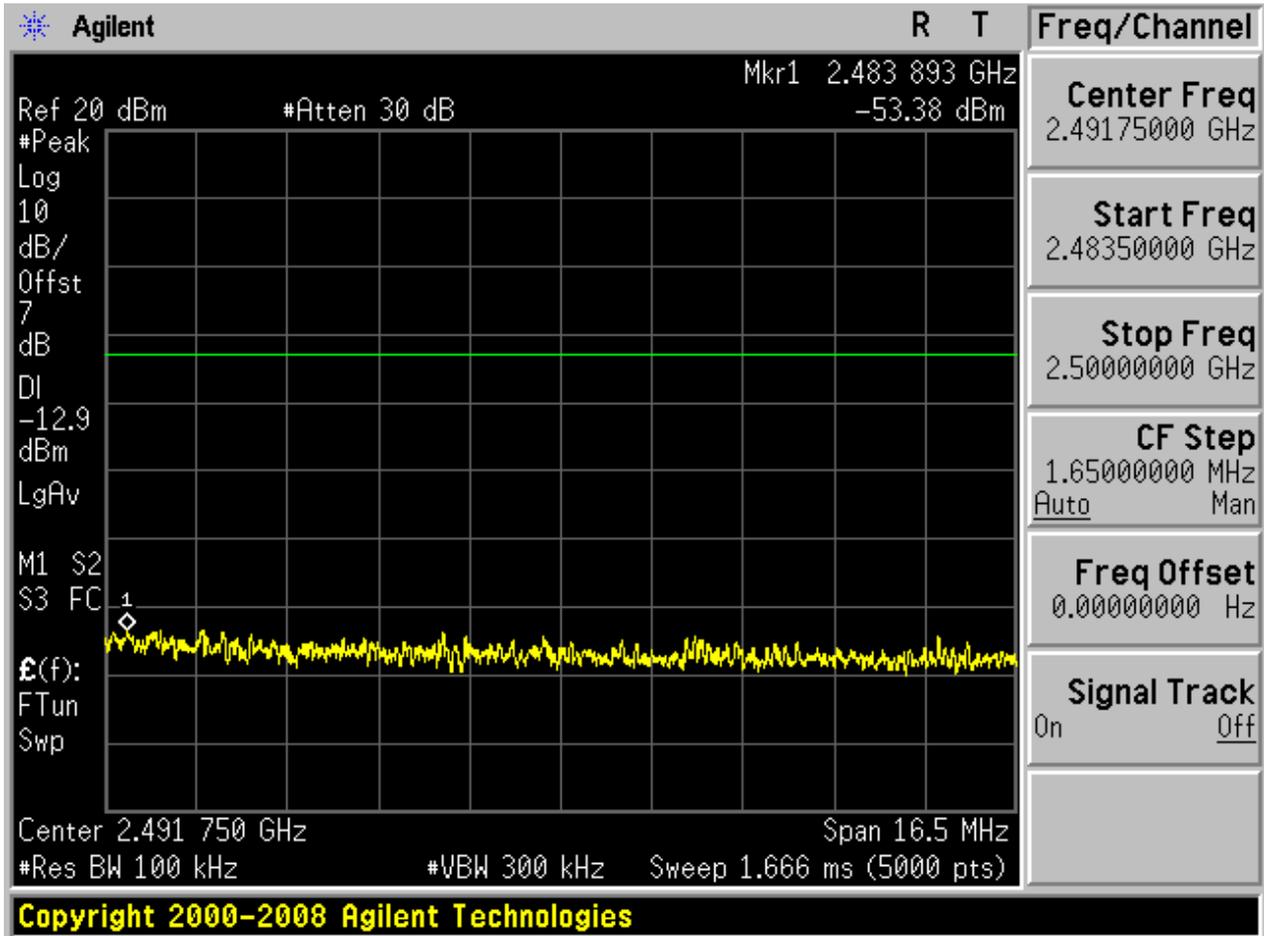
2.9.2 Puw

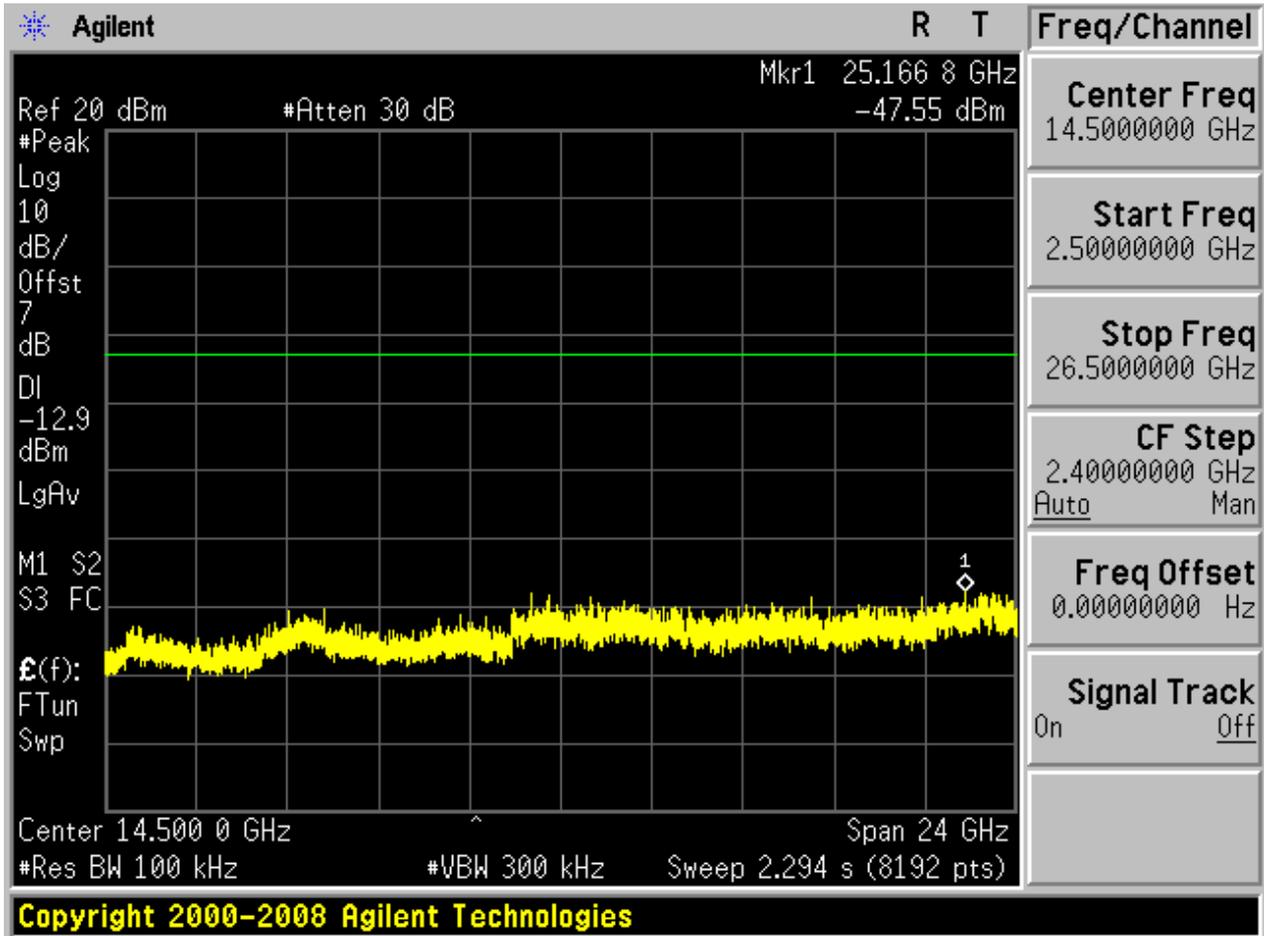














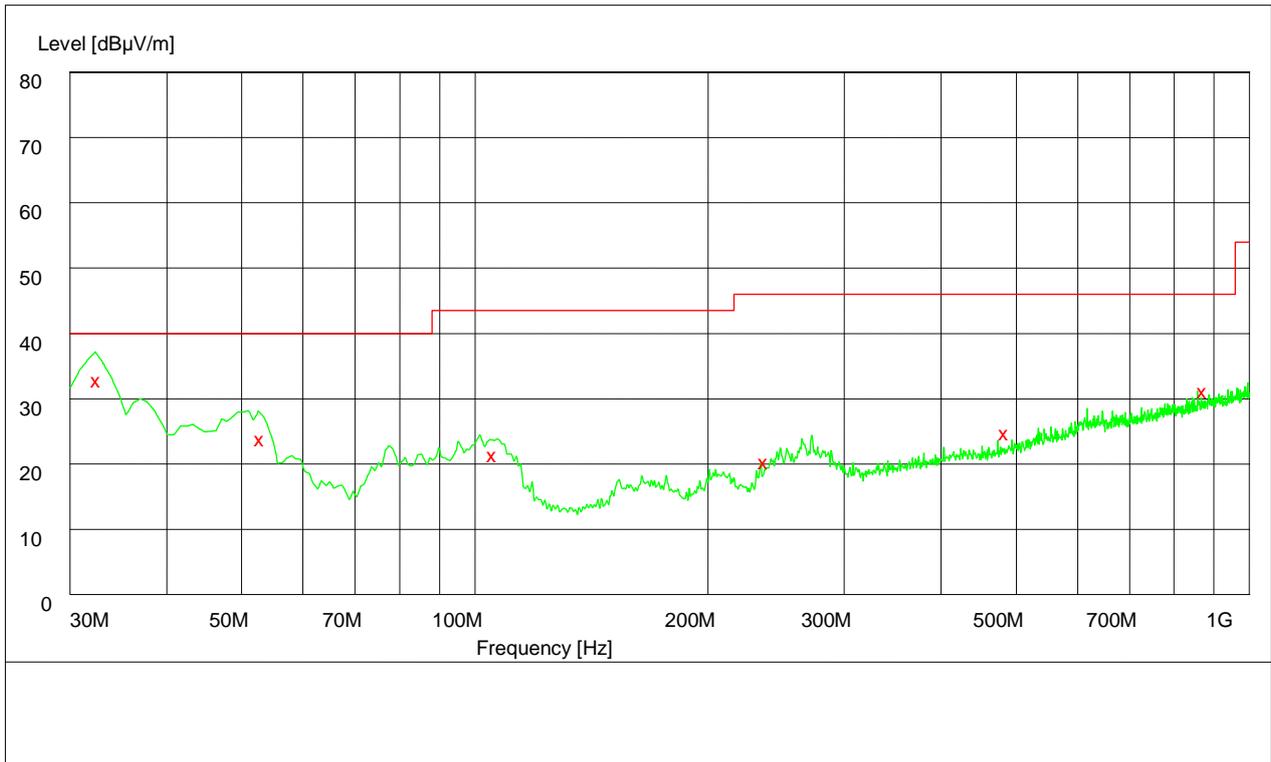
# **Appendix H**

## **Radiated spurious emission**

### Part 1: Testing Range of “30 MHz to 1 GHz”

Note 1: The test results and plot for testing range of “30 MHz to 1 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.

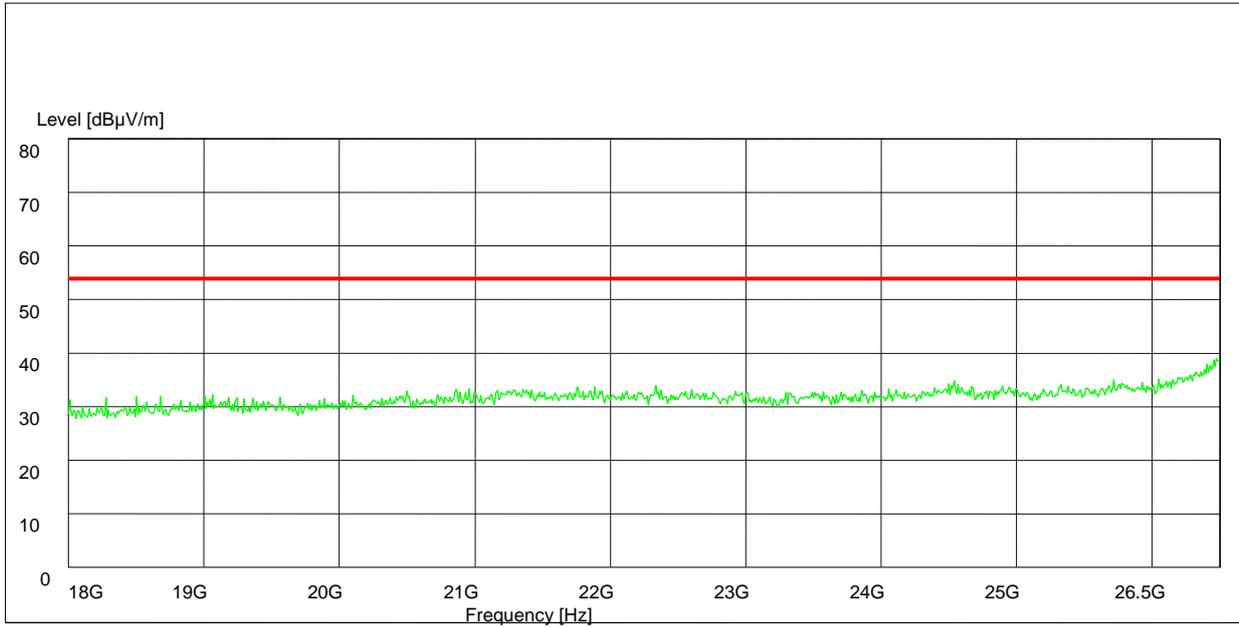
Note 2: The emissions in this range are mainly from the Platform Device (Notepad PC and its ancillary components).



Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Plarization
32.640000	34.30	14.1	40.0	5.7	100.0	172.00	VERTICAL
53.040000	25.30	14.7	40.0	14.7	100.0	286.00	VERTICAL
105.840000	22.70	13.1	43.5	20.8	104.0	142.00	VERTICAL
237.240000	21.70	13.7	46.0	24.3	122.0	247.00	HORIZONTAL
485.280000	26.20	18.9	46.0	19.8	111.0	25.00	VERTICAL
875.160000	32.60	24.7	46.0	13.4	121.0	180.00	HORIZONTAL

## Part 2: Testing Range of “18 GHz to 26.5 GHz”

Note: No peak found in pre- test.

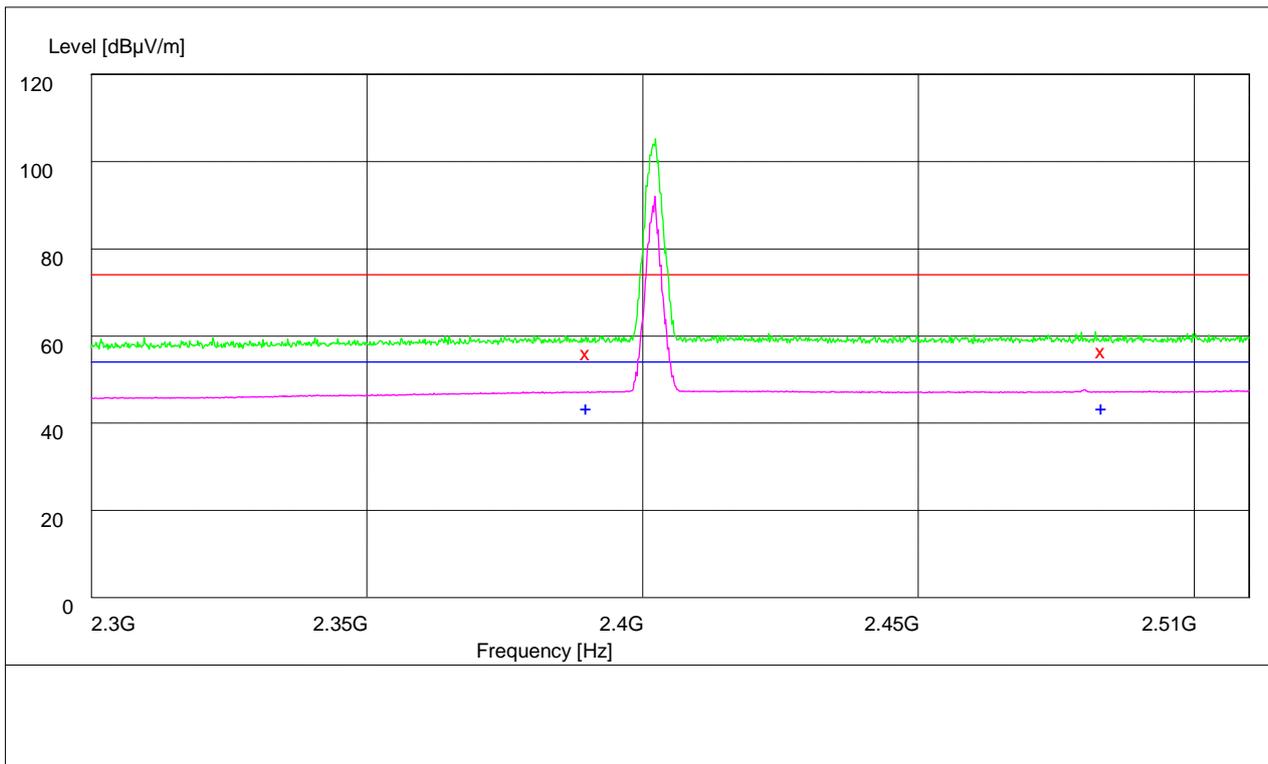


### Part 3: Testing Range of “2.3GHz to 2.5GHz”

- Note 1: The testing range of “2.3 GHz to 2.5 GHz” is for checking radiated emissions located in restricted bands near the EUT operating bands.
- Note 2: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dB $\mu$ V/m) and Average Limit (54 dB $\mu$ V/m).
- Note 3: The peak spike exceeds the limit line is EUT’s operating frequency.

### 3 Test Mode:

#### 3.1 Channel 00



Note: The peak exceeds the limit line is carrier frequency.

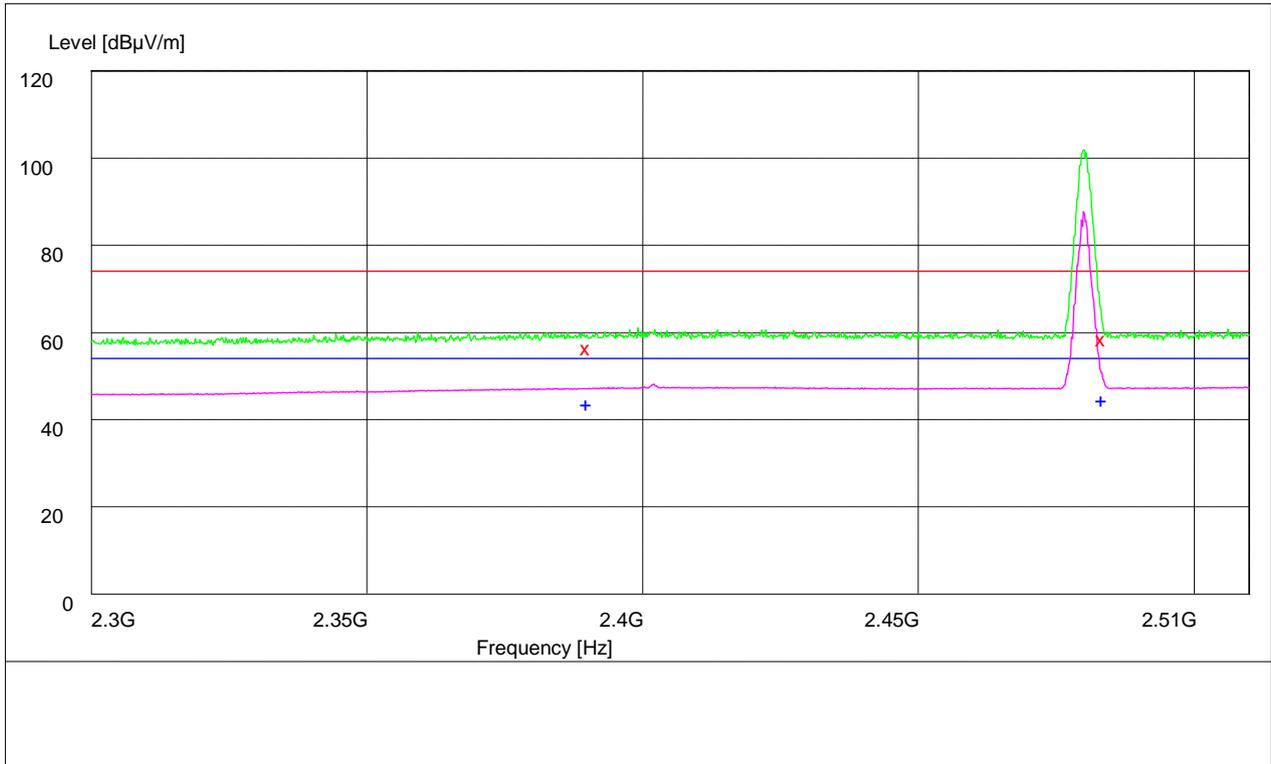
#### MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	58.10	34.7	74.0	15.9	158.0	168.00	HORIZONTAL
2483.500000	58.50	35.0	74.0	15.5	117.0	185.00	HORIZONTAL

#### MEASUREMENT RESULT: AVDetector

Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	45.70	34.7	54.0	8.3	100.0	239.00	HORIZONTAL
2483.500000	45.60	35.0	54.0	8.4	112.0	293.00	VERTICAL

### 3.2 Channel 78



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	58.50	34.7	74.0	15.5	102.0	249.00	VERTICAL
2483.500000	60.60	35.0	74.0	13.4	102.0	165.00	HORIZONTAL

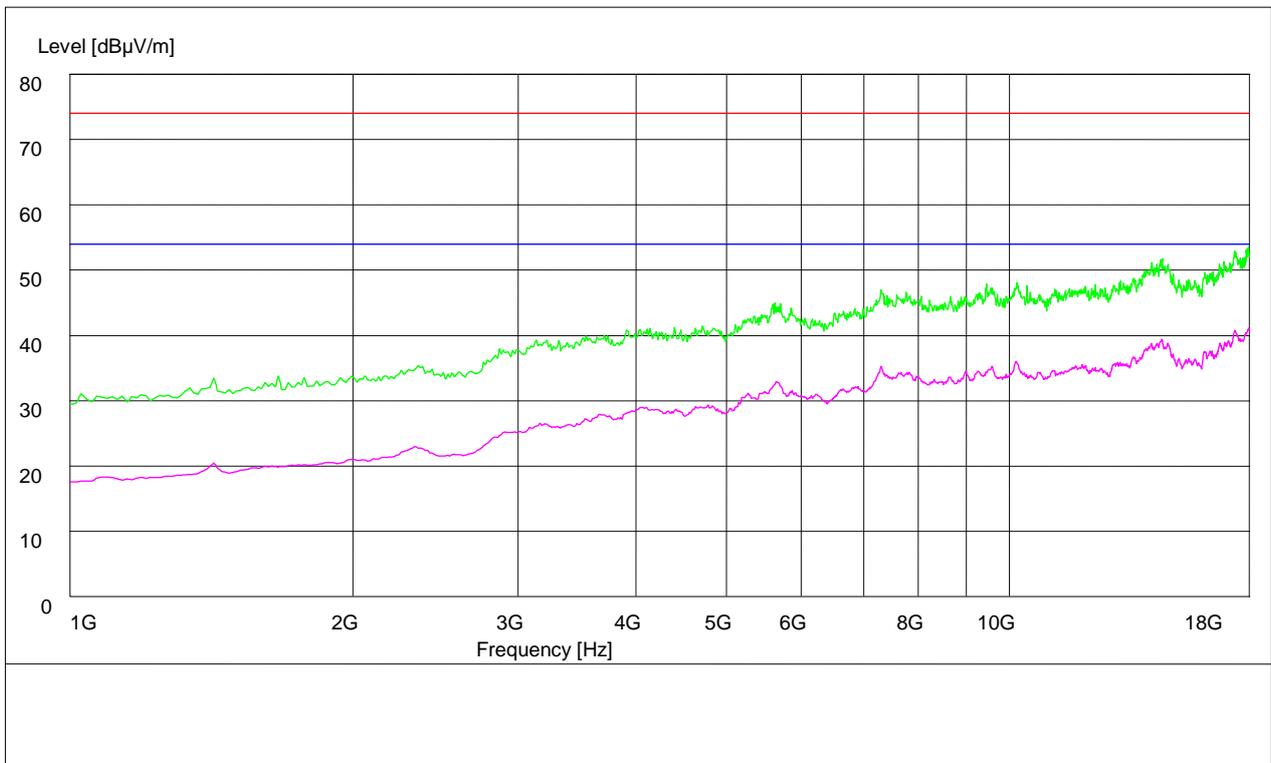
MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	45.70	34.7	54.0	8.3	100.0	85.00	HORIZONTAL
2483.500000	46.70	35.0	54.0	7.3	113.0	222.00	HORIZONTAL

### 3.3

#### Part 4: Testing Range of “1 GHz to 18 GHz”

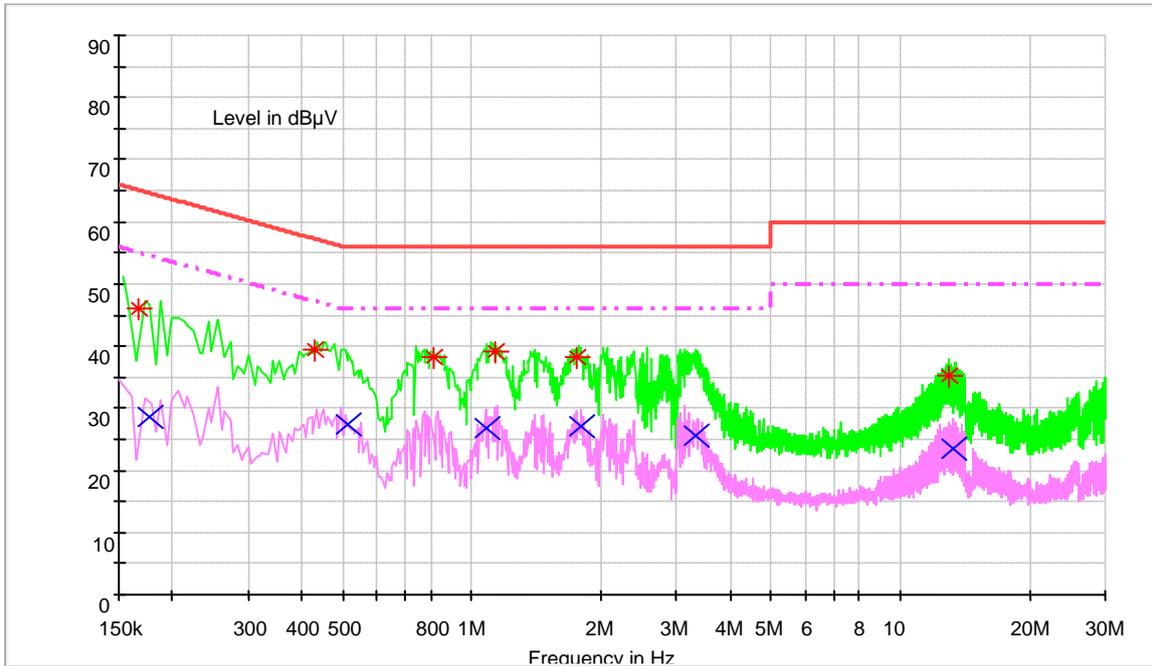
- Note 1: The test results and plot for testing range of “1 GHz to 18 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.
- Note 2: The testing range of “1 GHz to 18 GHz” is for checking radiated emissions located in restricted bands faraway from the EUT operating bands.
- Note 3: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dB $\mu$ V/m) and Average Limit (54 dB $\mu$ V/m).





# Appendix I: AC Power Line Conducted Emissions

# Channel 39



## MEASUREMENT RESULT: QP Detector

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.167738	46.1	9.7	65.1	19	N	FLO
0.42849	39.3	9.7	57.3	18	N	FLO
0.811043	38.3	9.7	56	17.7	N	FLO
1.131858	39	9.7	56	17	N	FLO
1.754112	38.2	9.7	56	17.8	N	FLO
12.96219	35.2	10	60	24.8	N	FLO

## MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.177255	28.5	9.7	54.6	26.1	N	FLO
0.516158	27.3	9.7	46	18.7	N	FLO
1.082389	26.8	9.7	46	19.2	N	FLO
1.806608	27	9.7	46	19	N	FLO
3.340158	25.5	9.7	46	20.5	N	FLO
13.20903	23.4	10	50	26.6	N	FLO

END